Socioecological Education: Faculty Knowledge, Beliefs, Values, and Practice in Post-Secondary Outdoor Education

A DISSERTATION SUBMITTED TO THE FACULTY OF THE

UNIVERSITY OF MINNESOTA

BY

Daniel Frank

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF

DOCTOR OF EDUCATION

Dr. Lynn Brice, Advisor

June, 2017

Abstract

Recent literature in Outdoor Education has promoted a more comprehensive and integrated approach to curriculum and pedagogy in the field, incorporating social and ecological justice, and accounting for the inextricable links between individuals, society, and ecology (Furman, & Gruenewald, 2004; Warren, Roberts, Breunig, & Alvaraz, 2014; Wattchow & Brown, 2011; Wattchow, et al., 2014). Socioecological education provides a meaningful pathway to achieving the aforementioned aims. This exploratory study utilized a survey methodology to examine the current state of post-secondary Outdoor Education faculty's perceived knowledge, espoused beliefs, reported priorities, and reported practice related to socioecological education (North, 2006; Wattchow, et al., 2014; Young, 2011). Results indicate significant correlations between perceived knowledge, reported priorities, and reported practice of socioecological education principles, and affirm the need for further development of social justice oriented curriculum and pedagogy in the field. Findings point to potential pathways for the advancement of socially and ecologically grounded integrated practice in Outdoor Education.

Dedication

This paper is dedicated to my sons Max and Lev, and to my friend and colleague Matt Stewart. Max and Lev—Always remember to leave the people and places you encounter better than the way you found them. Matt—your memory brings me strength. You are dearly and painfully missed but your bright and ferocious spirit lives on.

Wilderness is not a luxury but a necessity of the human spirit, and as vital to our lives as water and good bread. A civilization which destroys what little remains of the wild, the spare, the original, is cutting itself off from its origins and betraying the principle of civilization itself.

-Edward Abbey in *Desert Solitaire* (1968, p. 169)

Acknowledgements

Our lives are rich and complex webs of social and ecological relationships that make us who we are. For as many pages of formal academic writing that follow, I could fill ten times that amount with stories of the people and places that have comprised the whole of my lived experience. But I'll spare you—the reader—volumes of musings and instead focus on a few key notes of gratitude that I wish to express.

First and foremost, thank you to my best friend and life partner Angie, for putting up with me all these years. You are the kindest and most accepting person I know. Second, thank you to my parents for nurturing me through life and always inspiring me to strive to do good things in the world. To my mom, a superb teacher and tenured law professor who modeled the importance of always reaching higher in my academic pursuits; and to my dad, one of the most compassionate and intelligent people I know, for teaching me that higher education isn't a necessary ingredient for building a successful life.

Additionally, thank you to my dissertation committee—Lynn Brice, Ken Gilbertson, Insoon Han, and Helen Mongan-Rallis for their hard work and dedication to seeing me through this process. In particular, thanks to my advisor Lynn, the tireless guide who always challenged me toward greater clarity and pushed me far beyond what I thought I was capable of accomplishing. And to Ken, who has been an invaluable mentor and dear friend to me throughout the past several years—you have taught me so much about being an academic, a professional, and most importantly a good person.

Finally, thank you to my peers, colleagues, and friends in Cohort 3. I have learned as much from all of you as I have from the academic experience itself. This has been a wild ride in our little canoe and I hope to see you all paddle to the finish line soon.

Table of Contents

List of Tables

List of Figures

Chapter 1

Introduction

Background of the study

In a world of rapid population growth and ever increasing industrialization, humans face an array of social, ecological, and economic challenges. A broad range of academic disciplines in the social and natural sciences increasingly recognize the complexity of these challenges and seek sustainable solutions to temper the effects of climate change, economic globalization, and cultural imperialism that are intrinsic to such continued growth and development. The very real problems posed by these significant issues requires innovative solutions, which stem from a variety of academic disciplines. Environmental Education and Outdoor Education operate at the intersection of society and the environment, and offer a stage for deep exploration of the complex issues faced by humanity today (Higgins, 2009; Orr, 2004). Defined broadly, Outdoor Education (OE) is an experiential, interdisciplinary, and multi-sensory discipline incorporating physical skills, personal growth, and interpersonal interactions in an outdoor context (Priest, 1986). Outdoor Education has emerged from centuries of educational philosophy and practice in a variety of formal, non-formal, and informal settings (Gilbertson, Bates, Mclaughlin, Ewert, 2006; Smith & Knapp, 2011). Given the centuries old philosophical foundations of OE, formalized scholarship and development of theories and methodologies of OE in the United States is relatively new and has primarily taken place since the mid-20th Century, with the bulk of academic research emerging since the 1970's (Neill, 2002).

Outdoor Education has a track record of being an effective tool for achieving its prevalently stated aims, namely physical skills development, individual psychosocial

development, interpersonal skills development, and environmental awareness (Neill, 2008; Neill & Richards, 1998). Often, however, these aims have historically and perhaps inadvertently been targeted in isolation from one another. Likewise, historically largely absent from the central aims of OE is attention to issues of social justice and the development of deep, place-based ecological connectedness. Furthermore, the curricular and pedagogical aims of OE emerge from and maintain a hegemonic Eurocentric paradigm, which tends to overemphasize individual accomplishment, commodify nature, and minimize cultural differences (Wattchow & Brown, 2011).

It is useful to note there is no industry-wide set of best practices identified to ensure socially and ecologically just curriculum and pedagogy in OE. However, the literature identifies several pathways to developing more critical and integrated curricular and pedagogical approaches alternatives to the often fragmented aims of OE, which are situated within a hegemonic paradigm. Included are ways to broaden how practitioners prioritize personal and social aims, from individualistic physical and psycho-social growth to more richly targeted collaboration and relational development (Mitten, 1985, 1989; Mitten, Warren, Lotz, & d'Amore, 2012; Warren, 2012). Likewise, there is an identified need to shift away from hierarchical ideas of leadership to more collectivist approaches to problem solving and communication, in part by increasing awareness of cultural dynamics related to socioeconomics, cultural intersectionality, and systemic privilege and marginalization (Bell, 1996; Frazer, 2009; Rose & Paisley, 2012; Warren, 1996). Additionally, there is an identified need to shift away from viewing nature as a backdrop for self-challenge and adventure, and instead develop deeper ecological and geographical connections to place (Hill, 2013; Wattchow & Brown, 2011). Examples of these strategies will be discussed in Chapter 2.

Compounding problems associated with paradigmatic hegemony in OE, curricular and pedagogical areas identified by scholars as needing critical reformation are often addressed in isolation from one another. Recently, there has not been a push by scholars to develop a path to a broader holistic shift in OE curriculum and pedagogy that addresses a range of identified hegemonic shortcomings. Seeking to both incorporate diverse philosophical and theoretical perspectives, and build bridges among a seemingly fragmented curricular and pedagogical landscape, a growing number of scholars in OE since the late 1980's have spurred the field to be more attentive to social justice and environmental connectedness, with recent works focusing on the intersection of the two (Furman & Gruenewald, 2004; Gruenewald, 2003a, 2003b; Wattchow & Brown, 2011; Wattchow, et al., 2014).

Social justice in outdoor education

As history illustrates, the story of humanity is rife with injustices leveled against groups of people based on race, ethnicity, religion, gender, sexuality, physical ability, and numerous other cultural identities. As with any educational field, OE has an ethical imperative to recognize and respond to the historic and present-day injustices that exist. The earliest calls for the promotion of social justice in OE focused on increasing diversity of clientele in outdoor programs and becoming more responsive to differences of race, class, gender, and sexuality (Warren, et al., 2014). Specifically, Fox (1992), Garvey (1992) and Warren (1996, 1998) brought attention to the need for OE practitioners to recognize cultural differences in participants' personal and social values, curricular characterizations of nature, and understanding programmatic access barriers that tend to keep historically marginalized groups from engaging in OE. Scholars also addressed specific ways in which the central aims

and outcomes of OE were discordant with the cultural paradigms of particular historically marginalized groups, such as women (Mitten, 1985, 1989, 1994, 1999), African Americans (Agyeman, 1989; Roberts & Drogin, 1993), Native Americans (McDonald, & McAvoy, 1997), and Latinos (Chavez, 1992).

Overall, OE literature throughout the late 1980's and mid 1990's maintained a predominant focus on increasing diversity in OE and becoming more culturally sensitive to people from diverse backgrounds. Increasing access to and participation among historically marginalized groups was and remains an important objective. Still, the underlying social conditions that create unequal access and participation also needed to be addressed. In response, the late 1990's saw a shift to a more critical examination of the underlying social conditions, assumptions, and biases in the field. In particular, scholars began calling for broader recognition of and response to the structural and systemic issues of power, privilege, and marginalization (such as racism, sexism, and classism amidst which the field is situated (Floyd, 1998; McClintock, 1989; and Warren, 1996, 1998). Subsequently, this critical examination spurred the development of theoretical perspectives rooted in critical pedagogy (Freire, 1968), which seek to enlist deeper participant engagement in developing the aims and outcomes of OE programs (Breunig, 2005; Rose and Paisley, 2012; Warren, 2005).

Ecological connectedness in outdoor education

Meanwhile, in the ecological realm, scholars indicate a need to more intentionally build rich connections between participants and the natural landscapes in which they are learning (Knapp, 2005; Orr, 2004). Although not without empirical challenge, it is believed that developing deeper connections to ecological place both enhances the experience of participants in outdoor pursuits and also cultivates environmental stewardship (Baker, 2005;

Beringer, 1995; and Goralnik, & Nelson, 2011). Particularly, the new millennium has seen the establishment of *place based education* as a progressive and viable way to build rich connections between learners and the environment (Smith, 2002; Sobel, 2005; Wattchow & Brown, 2011; and Woodhouse & Knapp, 2000).

In addition to connecting to and caring for the ecology of a place, place based education also serves as a nexus for more fully integrating explorations of ecology and the environment with issues and aims of social justice in OE. Place based education (or *place-based pedagogy* as it is sometimes termed) acknowledges the intersectionality of cultural identity, social stratification, geography, and ecology, couched in critical experiential methodologies and centered in the lived experiences of students and educators (Furman, & Gruenewald, 2004; Gruenewald, 2003a, 2003b; and Wattchow & Brown, 2011). Combined with the theory of eco-justice (Bowers, 2002), place-based education helped pave the way for the emerging approach of socioecological education in OE. The result was a paradigm that seeks integrated and sustainable experiential educational solutions to the social and ecological problems facing humanity.

Socioecological education

One significant approach to addressing the intersectionality of ecological connection and social justice that develops more critical, diverse, and integrated curriculum and pedagogy in outdoor education is *socioecological education* (Wattchow, et al., 2014). Wattchow, et al. explain that socioecological education is "an interdisciplinary philosophy and pedagogical approach […] embracing a broad array of social, cultural, environmental, and geographical influences that shape individuals, identities, family, policies, and the environment" (p. 23). Socioecological education "[considers] the reciprocal relationship

between social and natural environments" (p. 25) as well as the embodied individual life experiences that influence the way learners and teachers interact with these environments. By exploring the complex relationships between humans and the environment, a socioecological approach to education presents opportunities for creative and authentic solutions when working to address real world problems such as systematized social stratification, overpopulation, and climate change. Socioecological education provides a rich theoretical foundation for the present study, which seeks to illuminate the extent to which faculty in OE are responding to the evolving curricular and pedagogical needs of the field as identified in the literature.

In particular, Wattchow, et al.'s (2014) model of socioecological education is built upon four key principles that include:

1) Utilization of *experiential pedagogies* in order to understand the significance of the learning through direct and authentic experience.

2) Centering the experience in a *place-based* curricular framework.

3) Active recognition that students' learning is situated in the whole of their *lived experience*.

4) Active and continual *agency and participation* of learners in the key decision-making aspects of the learning process.

These principles will be explored more fully later in this chapter, and operationalized in Chapter 3. For the sake of this study, Wattchow, et al.'s (2014) model will serve as a central piece of the theoretical framework. An, added emphasis on critical approaches to social justice (Furman & Gruenewald, 2004; North, 2006; and Young, 2011) will be included in order to extend the model. By measuring the extent of faculty's espoused knowledge, belief,

priority, and practice of socioecological education in their curriculum and pedagogy, this study seeks to clarify the state of the field with regard to challenges of social justice and environmental connection as identified in the literature.

Purpose of the study

Although socioecological education is becoming increasingly discussed in OE literature, there is little evidence regarding the extent to which socioecological approaches are being embraced by OE practitioners, or the outcomes of such practices (Hill, 2012). While examining the outcomes of socioecological education on the participant experience is beyond the scope of this study, this study was designed to illuminate the extent of practitioner's espoused knowledge beliefs, priorities, and practice related to socioecological education, particularly by faculty who teach OE in post-secondary degree-granting programs. As discussed above, the principles of socioecological education explored were a combination of Wattchow, et al.'s (2014) model, with added dimensions of social justice (Bowers, 2002; North, 2006; and Young, 2011). For the present study, then, the principles of socioecological education included:

1) *Place-based* curriculum and pedagogy, which allow for holistic and meaningful learning situated ecological, political, social, historical, cultural, and economic realities of place.

2) *Agency and participation*, which encourages participants to maintain a high level of engagement in the learning process, as well as ownership of the aims and outcomes of their learning.

3) *Social justice* maintains an active critique and transformation of interpersonal, institutional structural, and systemic social power dynamics that influence the

learning environment. This principle also recognizes the ways in which social power dynamics are mirrored in humans' treatment of the environment.

4) *Experiential pedagogies*, which encourage authentic reflective and reflexive learning, situated in the socio-cultural contexts in which the learning is taking place.

5) *Lived experience*, which recognizes the entirety of a participants' past and present realities, such as cultural identity, socio-economic status, and prior educational experiences. Socioecological education acknowledges the whole of what a person brings to the learning environment, and actively explores how one's lived experience influences their experience in the present learning environment.

Research Questions

The primary questions guiding this research were:

1. What is the extent of post-secondary Outdoor Education faculty's espoused knowledge, beliefs, and values about Outdoor Education in relation to the underlying principles of Socioecological Education?
2. What is the relationship between post-secondary Outdoor Education faculty's espoused knowledge, beliefs, and values about the principles of Socioecological Education and their reported pedagogical application of those principles?

To investigate these guiding questions, faculty completed a survey that probed the extent of their perceived knowledge, espoused beliefs, reported priorities, and reported practice of socioecological education in order to provide a basis for answering the following sub-questions:

1. What is the current level of perceived knowledge of post-secondary Outdoor Education faculty regarding socioecological education?

2. To what extent do faculty believe the predominant aims and purposes and principles of socioecological education are important in Outdoor Education?
3. To what extent do faculty in post-secondary Outdoor Education programs prioritize the predominant curricular aims and purposes of Outdoor Education in relation to the social justice principle of socioecological education?
4. To what extent do faculty report applying socioecological education principles in their pedagogy in post-secondary outdoor education?
5. What is the extent of the correlation between post-secondary Outdoor Education faculty's perceived knowledge and espoused beliefs about the principles of socioecological education and their pedagogical application of those principles?
6. What is the extent of the correlation between post-secondary Outdoor Education faculty's prioritization of curricular aims of social justice and their pedagogical application of social justice pedagogy?

Significance of the study

As discussed above, this study explored the extent of post-secondary faculty's espoused knowledge, beliefs, priorities, and practice of socioecological education. Application of socioecological education is ripe for investigation, as socioecological education is an emerging paradigm in OE that may serve to alleviate problems of hegemony and fragmentation of current practices in OE. By identifying the extent to which faculty are incorporating socioecological education principles into their practice, this study served inform future efforts to more robustly incorporate social justice into OE. Likewise, it aided in assessing what principles of socioecological education are being incorporated by faculty, as well recommending areas of socioecological education needing more practical modeling,

training, and development among faculty. Finally, this study aimed to inform the field about gaps that may exist in socioecological education theory and practice that need further research and development. In particular, it extended socioecological theory and modeling to include a distinct focus on social justice as a key principle of socioecological education.

Theoretical framework

Socioecological education as a curricular and pedagogical paradigm stems from the integration of complementary theories from a variety of academic disciplines including sociology, ecology, education, psychology, environmental education, and outdoor education (OE). Potentially, the interdisciplinary theoretical foundations underpinning socioecological education may serve to alleviate the fragmentation of aims and purposes in OE, which have been identified in recent literature (Bowers, 2002; Furman & Gruenewald, 2004; Gruenewald, 2003a; and Wattchow, et al., 2014). Wattchow, et al.'s (2014) model provides a practical framework of socioecological education, focused on the development of an interdisciplinary place based and student-centered experiential learning, situated in the lived experiences of participants. However, it does not sufficiently address social justice, nor does it pay sufficient attention to the broader structural and systemic socio-cultural situated nature of the learning experience.

While the authors emphasize the need for participants to have agency in the learning process as well as understanding the sociocultural situated nature of ones lived experience, a more distinctly critical approach is called for in the field, due to the complexity of issues related to social justice identified in OE literature. Therefore, the theoretical framework for this study added to Wattchow, et al.'s (2014) a more distinct theory of social justice, wherein social justice was theorized as a relational (North, 2006; Gewirtz, 1998), anti-oppressive

(Young, 2011), and counter-industrialist (Bowers, 2002; Furman, & Gruenewald, 2004; and Gruenewald, 2003a) phenomenon. Social justice, as it was conceptualized in this study requires the continual acknowledgement and critique of unjust social dynamics, while striving to promote equity and inclusion among participants through transforming those unjust social dynamics.

Wattchow et al. (2014) explicate the need for utilizing experiential pedagogies as an essential component of a socioecological education. They include the use of both reflective (intrapersonal—such as journaling and solo experiences) and reflexive (interpersonal—such as group discussions) methodologies in order to comprise a holistic experiential practice. Additionally, in order to more fully address the situated sociocultural nature of the learning process, the theoretical lens for this study expanded the definition of experiential pedagogies to also include key aspects of social constructivist pedagogy. Gredler (2012) and Petrová (2013) offer contemporary and pragmatic theoretical perspectives on the work of Vygotskyan constructivism, which helped to clarify socio-culturally situated context of faculty's experiential pedagogies being explored in this study.

Synthesizing the core tenets of Wattchow et al.'s (2014) socioecological education model with the additions of social justice and the emphasis of social constructivism in experiential pedagogies to the theoretical framework, the key theoretical constructs of this study included:

Place-based – Active recognition of the geographic, social, historical, economic, political, and ecological constructions of place, and the ways in which place shapes the learning experience.

Experiential Pedagogies – Deliberate processing of reflective and reflexive aspects of the learning experience, with particular attention to the dialectic manner by which social interactions processes shape individual learning and group development.

Social Justice – Active critique of systems of privilege and marginalization that impact the learning environment, as well as the ways in which oppressive systems impact the experience of learners and parallel our treatment of the natural world.

Agency and Participation – Active engagement of participants in relevant aspects of the planning, implementation, assessment, and evaluation of the OE programs in which they are involved.

Lived Experience – Recognition of and response to the whole of participants' identities, as situated in the cultural, social, economic, political, and ecological landscapes that comprise their life experiences.

Analytical framework

As identified above, this study sought to determine the extent of post-secondary Outdoor Education faculty's espoused knowledge, beliefs, priorities, and practice of socioecological education. In order to do so, this study examined faculty's perceived knowledge of and espoused beliefs about the fundamental aims and principles of OE, as well as their reported priorities and practice related to socioecological education principles. In order to effectively investigate the guiding research questions, this study utilized a descriptive statistical analytical framework and a survey methodology. A survey instrument allowed for the gathering of a large data set across institutional and geographic lines, in an attempt to identify statistically significant trends in post-secondary faculty's espoused knowledge, beliefs, priorities, and practice of socioecological education. The survey was

administered to faculty teaching in post-secondary degree-granting OE programs in the United States. Demographic data was gathered, including professional experience, faculty rank, educational background, race/ethnicity, and gender identity in order to potentially further describe the data with regard to how socioecological practice is engaged in pre-service teaching. Utilizing a survey instrument allowed for the descriptive comparison of variables such as faculty's espoused beliefs in prominent aims and purposes of OE, percieved knowledge of socioecological education, and reported priorities and practice of socioecological education. The constructs measured were based largely on the socioecological education model developed by Wattchow, et al. (2014), with the addition of social justice as theorized by Furman & Gruenewald (2004); North (2006); and Young (2011).

Definitions

The following section provides conceptual and operational definitions of theoretical constructs and pertinent terms that were referenced in this study. Operational definitions refer to the ways in which these constructs are applied and/or enacted in the field of OE. More extensive theoretical discussion of these concepts will take place in Chapter 2, and detailed operationalization of variables will appear in Chapter 3.

Agency. *Conceptual Definition:* Wattchow et al. (2014) refer to agency as a group's or individual's "capacity to act independently and make free choices" about a variety of life situations (p. 38).

Operational Definition: Agency refers to the ability of the learner to have an active voice in relevant aspects of the learning process, including but not limited to aims and outcomes, structure, content, activities, processing, and assessment.

Constructivist Pedagogy. *Conceptual Definition:* Constructivism recognizes that reality is socially constructed through a dialectic process between teacher and learner. Each person brings prior knowledge and experience to the learning environment. The teacher challenges the learner to make new connections and develop new skills and knowledge, and communities of learners grow and develop collectively throughout the process.

Operational Definition: Constructivist pedagogy refers to deliberate processes (such as lessons, discussions, physical skills practice), as well as embedded processes (such as social norms, language, cultural assumptions), which cultivate the dialectic exchange of knowledge and ideas among learners and between learners and teacher. In the context of OE, this also includes the influential role of the natural environment in the construction of learning.

Belief. *Conceptual Definition:* Borg (2011) describes belief as "a proposition which may be consciously or unconsciously held, is evaluative in that it is accepted as true by the individual, and is therefore imbued with emotive commitment; further, it serves as a guide to thought and behavior" (p. 186).

Operational Definition: This study deals with faculty's espoused beliefs, and therefore a belief is an idea or sensibility about a particular curricular or pedagogical aim or outcome, which faculty can articulate, express, or identify by its level of importance to them.

Curriculum. *Conceptual Definition:* Rafferty (2012) states that "curriculum is understood to be the totality of learner experiences in relation to all educational arrangements and practices, as well as the political, racial, social, and gender oriented issues outside the classroom" (p. 387). Curriculum includes not only the content covered within the classroom or institutionalized within programmatic standards, but more broadly the ways in which the

content itself is experienced by the learner, the theoretical lenses through which the content is viewed, the socio-political values underlying the content, and the ways in which the content and meaning influence the lives of students outside the classroom (Pinar, 2012; Pinar, Reynolds, Slattery, & Taubman, 2006).

Operational Definition: Curriculum refers to the identifiable aims, purposes, content, actions, interactions, and assumptions, which comprise totality of the learning process and learning environment. In OE, curriculum includes a predominant focus on physical skills development, personal and social development, and environmental awareness.

Experiential Pedagogy. *Conceptual Definition:* Experiential learning is a reflective process by which students "significantly identify with, seriously interact with, [and] form a personal relationship with" the content being addressed (Joplin, 1995, p. 15). Experiential pedagogies value and foster direct connections between learner, subject, and context, coupled with the use of reflective processing techniques, in order to cultivate meaningful and authentic learning (Wattchow, et al., 2014).

Operational Definition: In OE, experiential pedagogy refers to the manner in which the learner is brought into direct contact with the subject matter being addressed, as well as the ways in which they are encouraged to reflect on the meaning found in their interactions with the subject matter. In socioecological terms, this also includes the active exploration of and significance of interpersonal interactions throughout the learning process.

Knowledge. *Conceptual Definition:* Anderson, Krathwohl, & Bloom (2009), describe knowledge as a construct of understanding, involving the memory and grasp of meaning of a particular concept or concepts, and preceding the application of said concept or concepts.

Operational Definition: This study recognized knowledge as a precursor to application, and is concerned with faculty's perceived knowledge of conceptual principles of socioecological education. Therefore, levels of perceived knowledge will be described on a spectrum according to familiarity and potential application (i.e. working knowledge or expertise) of socioecological principles.

Outdoor Education. *Conceptual Definition:* Outdoor Education (OE) is an experiential, interdisciplinary, multi-sensory discipline incorporating physical skills, personal growth, and interpersonal interactions in an outdoor context (Priest, 1986).

Operational Definition: For this study, Outdoor Education (OE) referred to programs that explicitly target some aspect of each of the following, through the use of experiential pedagogies: 1) physical skills development in outdoor pursuits, 2) one or more aspects of personal and social development (PSD), and 3) environmental awareness, connection, and/or stewardship of the natural world.

Place-Based Pedagogy. *Conceptual Definition:* Place-based pedagogy is rooted in Sobel's (2005) concept of place based education, which purports connecting students to local landscapes in order to more effectively teach academic concepts, as well as developing a sense of environmental stewardship. Wattchow, et al (2014) categorize place into four arenas: the sociological, the ideological, the political, and the ecological. Therefore, place refers to the totality of geographical, historical, social, cultural, ecological, political, and economic locations. Place-based pedagogy recognizes that the location in which educational experiences are taking place play a critical and influential role in how learning unfolds.

Operational Definition: Place-based pedagogy refers to identifiable actions, interactions, and assumptions that comprise the learning process, in which constructs and

contexts of place are directly addressed and accounted for. In place-based pedagogy, teacher and learner actively acknowledge and account for the contextual implications of place.

Practice. *Conceptual Definition:* Practice is defined as the application of pedagogical principles in the teaching and learning setting.

Operational Definition: This study was interested in determining the extent to which faculty report applying certain pedagogical principles in their teaching, including identifiable instructional actions, teaching methods, and instructional design principles that comprise the learning environment.

Priority. *Conceptual Definition:* This study defined priority as an extension of belief, through which individuals demonstrate value preferences about concepts, ideas, and/or practices. (Pajares, 1992).

Operational Definition: This study was interested in finding out how faculty report prioritizing curricular aims of OE. Thus priority was described based on faculty's ranking of certain curricular aims in order of importance to them.

Social Justice. *Conceptual Definition:* For the purposes of this study, social justice was described as an ideal societal state of being in which all groups and individuals have equitable access to, and interaction with rules and relationships within social, political, and economic systems. Social justice is a relational ideal to which society should aspire, although it is not necessarily an attainable or achievable outcome (North, 2006) Social justice is a not simply an end goal, but rather a process of identifying and working to remedy oppressive social relationships on interpersonal, institutional, and systemic levels (Young, 2011).

Operational Definition: Social justice refers to the pedagogical enactment of intentional attitudes and actions seeking to critique, challenge, and transform systems of

oppression, privilege and marginalization. Such actions include, but are not limited to curricular design, inclusive teaching methods, dialogue among practitioners and participants about systemic power dynamics, direct social service and/or activism, and interpersonal or institutional practices that seek to promote equity among historically marginalized or excluded groups. In the context of this study, social justice requires a particular acknowledgement of the overwhelmingly low numbers of minority groups participating in OE programs and leadership, as well as the impacts of European colonization on indigenous people and natural ecology in the United States.

Socioecological Education. *Conceptual Definition:* Socioecological education is an interdisciplinary curricular and pedagogical practice that recognizes the inherent interconnectedness between society and ecology. It attends to the sociological, ideological, political, and ecological constructs of place, and utilizes experiential pedagogies in order to cultivate meaningful learning within the context of place (Wattchow, et al., 2014).

Operational Definition: Socioecological education refers to curricular and pedagogical practices that align with the tenets outlined on pp. 16-17 (place-based curriculum, experiential pedagogies, social and ecological justice, agency and participation, and lived experience).

Limitations of the Study

This study was designed with a very specific aim to gain clarity as to post-secondary Outdoor Education faculty's espoused knowledge, beliefs, priorities, and practice of socioecological education. In order to more clearly contextualize this study, it was necessary to establish distinct geographic and programmatic boundaries for implementation of the research. The study surveyed OE faculty from post-secondary degree-granting programs in

the United States. Survey participation was limited to faculty of four-year higher education institutions in the United States due to the varied socio-political situated nature of education in different countries. In particular, higher education is heavily influenced by public policy. Therefore, limiting the study to the United States reduced social and governmental influence as confounding variables, which would have been difficult to isolate.

Additionally, since place is a central construct of socioecological education, geography plays an important role in the perception, understanding, and implementation of socioecological principles in practice. While the United States is ecologically and geologically extremely diverse, there are some common national ideals related to society's relationship to the land. For example, romantic ideals about wilderness and nature are central to a dominant sense of national identity in the United States. Although the modern preservation and conservation movements maintain a history rooted colonialist dispossession of indigenous lands (Spence, 1999), the aesthetic value of protected lands is nonetheless widely valued in United States society. Collecting data from other nations or distinct cultural groups was beyond the scope of this study.

With regard to research subjects, faculty in post-secondary institutions were targeted in part to limit the scope and scale of the study. Also, higher education faculty are likely to have had prior exposure to academic literature in OE, and may be more familiar with socioecological theories and modeling. Furthermore, it assumed that faculty have a solid grasp of the foundational aims and purposes of OE. This likelihood is important when exploring faculty's perceived knowledge of foundational OE aims and purposes and their reported practice of socioecological education. It is also important to note that the present study did not seek to determine the impact and outcomes of socioecological education on the

participant experience, but instead how the principles of socioecological education may or may not inform faculty pedagogy.

In addition to limiting the scope of research subjects and geographic reach of the study, it is important to acknowledge some underlying assumptions about the theoretical and analytical frameworks utilized. An assumption of the present study was the potential of socioecological education to be a transformative paradigm to alleviate identified shortcomings in the field of OE. While grounded in the literature, there is little evidence as to the effectiveness of socioecological education in meeting its stated aims and outcomes. This exploratory study served to gauge the extent of its utilization, which may lead to more experimental research to determine the effectiveness of socioecological education in practice.

Chapter 2

Literature Review

As discussed in Chapter 1, this study examined the extent of post-secondary Outdoor Education faculty's perceived knowledge, espoused beliefs, reported priorities, and reported practice related to socioecological education. In order to more robustly frame the potentially transformative value of a socioecological approach to OE, the following pages explain specific identified gaps and critiques in the field, which suggest the need for a paradigm shift. As will be discussed, much of what socioecological education offers is a return to foundational philosophical beliefs of OE, which have been perhaps unintentionally been oversimplified in recent decades. Included is a renewed attention to the social situation of individual development in experiential learning, as well as a renewed focus on the importance of ecological connection and environmental stewardship. This renewal stems from an identified need to begin enacting a blend of existing theoretical ideals of social justice (Warren, et al., 2014), and eco-justice (Bowers, 2002; Furman & Gruenewald, 2004). Likewise, this chapter explicates the need for a broadened understanding of place-based pedagogy (Sobel, 2005; Wattchow and Brown, 2011), as well as an expanded awareness of curricular hegemony within OE and a critical and transformational approach to achieving social justice.

The following pages will first discuss the central long-held aims and purposes of OE, interwoven with critiques from the literature about hegemonic practices and recommendations for more inclusive practices. Subsequently, theoretical roots of socioecological education will be discussed, including place-based pedagogy, social ecology, social justice, and eco-justice. Finally, a summary of the critiques and recommendations will

be provided, framing the rationale and use of socioecological education as a potentially transformational paradigm to achieve needed changes in OE.

Aims and Purposes of Outdoor Education

Experiential learning. At the philosophical core of contemporary OE lies Dewey's (1938) experiential learning philosophy, which describes effective education as a continuum of learner experiences threaded together by personal reflection and contextualized application of skills and knowledge acquired through that reflection. Dewey believed that people are engaged in their world through a continual series of experiences by which new knowledge can continually be discovered. He proposed that the continuity of experiences throughout one's life provides many series of opportunities by which one may discover the relevance of new ideas and concepts. He rejected the idea that "education consists of bodies of information and skills that have been worked out in the past; therefore, the chief business of the school is to transmit them to the new generation" (p. 17). Rather, education is a means of enabling students to identify and synthesize new understandings of themselves in relation to other people and to the surrounding world, and thus develop new ways of thinking and acting. Through self reflection and practical transference of knowledge, students are able to process what they have learned and apply it in tangible new ways.

Joplin further explains that effective experiential learning encourages students to "significantly identify, seriously interact with, [and] form a personal relationship with" the content being addressed (Joplin, 1995, p. 15). By deeply engaging with the content and actively reflecting on how they are engaged with the process itself, learners are able to draw significant connections between past and present learning experiences, and can thus understand both the content and themselves in new ways. They can then augment prior

perceptions with new understandings to guide themselves through and decipher subsequent experiences.

In OE, the experiential learning process most often centers on real-life problem solving opportunities such as physical and emotional challenges, group communication and cooperation, and exploration of the natural world (Gilbertson, et al., 2006). Through adventure pursuits such as rock climbing and whitewater paddling, students are faced with real physical challenges, which can be used as metaphors for personal and social development in other areas of participants' lives (Beames, 2012). Similarly, by learning about the ecology and natural history of an area with which participants have direct contact, they can more easily develop a sense of environmental stewardship to apply in other contexts in their lives (Cheeseman, 2015). A variety of reflective tools, such as journaling, group debriefs, peer feedback, and storytelling are utilized in order to achieve meaningful transfer of learning to future settings (Sugerman, et al., 2000).

In addition to the personal cognitive and affective benefits of experiential pedagogy, Dewey's work emphasizes the importance of contextualizing learning within the broader sociocultural landscape within which it is taking place (Dewey, 1938). Dewey explains that education is a means for promoting social and civic engagement as well as a tool for influencing the aims and outcomes of society. Moreover, he asserts that education can be a means for building equity amidst inherent societal inequalities. He states,

> It is no accident that all democracies have put a high estimate upon education; that schooling has been their first care and enduring charge. Only through education can equality of opportunity be anything more than a phrase. Accidental inequalities of birth, wealth, and learning are always tending to restrict the opportunities of some as compared with those of others. Only free and continued education can counteract those forces which are always at work to restore, in however changed a form, feudal oligarchy (Dewey, p. 223, 1916).

The social aspect of Dewey's philosophy is critical in understanding the role of experiential pedagogies in the context of outdoor education, which views experiential pedagogies as both reflective practice—through which the individual learns and grows internally, and reflexive practice—a dialectic process of growth between and among learners (Wattchow, et al., 2014).

Social constructivism. In addition to Dewey's work, experiential pedagogies in OE draw largely from the social constructivist theory of Vygotsky (1978), who describes learning as a dialectic process of discovery and development between the *more knowledgeable other* (the teacher, in educational settings) and learner, embedded within larger sociocultural contexts (Smith & Knapp, 2011). Vygotsky asserted that meaningful and growth-inspiring learning occurs when learners are properly supported in performing tasks they cannot accomplish on their own but are also not beyond their developmental capabilities (Gredler, 2012). Growth then occurs as learners develop new skills and knowledge outside their existing capabilities, are provided opportunities for personal reflection, and then led to approach future learning situations with greater self-understanding.

While the reflective learning process described here is much akin to Dewey's work, it is important to explicate what Vygotskyian social constructivism contributes to the experiential process. Whereas Dewey largely focused on education as a tool for promoting cognitive development and just social and civic aims, Vygotsky asserted that the contextual social realities in which learning takes place are themselves products of the learning process. According to Vygotsky, not only is learning influenced by society and society influenced by new learning, but sociocultural realities are actually constructed and transformed through the

dialectic reflective and reflexive processes taking place between teacher and learner (Petrová, 2013).

As mentioned above, personal reflection is viewed as a critical link to enhancing participants' personal development (Beames, 2012), as well as their sense of environmental stewardship (Cheeseman, 2015). Similarly, Smith and Knapp (2011) assert that incorporating Vygotskian principles into experiential education and OE helps "reinforce the value of social interaction, joint problem solving, and real-world practice in learning" (p. 161). Activities that deliberately involve interpersonal dialogue and problem solving, such as navigation, camping skills, adventure sports, and field interpretation provide authentic opportunities for constructivist learning. Students must work together to not only accomplish the tasks at hand, but to develop group expectations and norms in order to flourish in their collective pursuits (Priest & Gass, 2010).

Vygotsky further described that the development of higher psychological functions, such as effective interpersonal communication, critical thinking, and problem solving "[are] triggered by the use of a specific means—cultural tools—which increases the effectiveness of intentional human action in society" (Petrová, 2013, p. 239). Language is one such example of a central cultural tool, and not only enables teacher and learner to verbally communicate with one another, but also serves as an embodiment of cultural ideals. This makes it a "useful means for deploying culturally more relevant strategies for dealing with problem situations, which exceed the effectiveness of the strategies currently available to individuals as a part of the repertoire of independent action" (Petrová, 2013, p. 240). Other cultural tools situated in a larger sociocultural context include underlying curricular values, conversational norms and expectations, body language, and a number of other explicit and implicit values and

behavioral norms. Therefore, learning both influences and is influenced by social and cultural ideals, norms, values, biases, and assumptions.

Recognizing the impact of underlying social and cultural influences is critical to OE. For example, Brookes (2016) explains that the most oft cited founders of OE are men of European descent. Likewise, the context from which modern OE emerged was to alleviate identified social declines and prepare youth to be confident and capable social servants, particularly in military endeavors. These early aims were primarily responsive to identified needs in Europe and the United States. As will be discussed further in this chapter, what emerged in OE was a central focus on personal development through physical challenge, as well hierarchical notions of leadership (Warren, 1998; and Bell, 1996). Such aims are not necessarily universal to all participants, and may actually be detrimental to some historically marginalized groups (Davis-Berman & Berman, 2005).

Instead, by actively acknowledging the European roots of OE, scholars and practitioners can begin to build models that are more responsive to a variety of needs and sensibilities, rooted in non-dominant social and cultural values (Wattchow & Brown, 2011). In essence, the move toward more inclusive practice requires a return to the often understated elements of Dewey's and Vygotsky's influence in OE. When processing the learning experience, instructors must engage participants in explorations of the broader social constructs and contexts of the learning experience. This includes identifying aspects of the learning such as embedded cultural messages within activities, social and cultural identities within and among participants, and the broader social aims of a particular learning program or activity.

Given the extent to which Dewey's and Vygotsky's work has influenced OE pedagogy, it is somewhat ironic that much of the call for increased attention to social and ecological context in OE results from a curricular departure from its experiential and constructivist roots. Glassman (2001) and Popkewitz (1998) point out that while both Dewey and Vygotsky prioritized attention to the reality that all meaningful learning is situated in broader sociocultural contexts, modern theoretical frameworks of experiential learning often lack attention to the influence of said contexts. For example, Kolb's (1984), Experiential Learning Theory is often touted as a more contemporary and practical iteration of Dewey's philosophy and serves as a theoretical framework in much of OE literature and practice. While Kolb's theory effectively operationalizes many aspects of the experiential process, it lacks the contextual sociocultural dimension that are central to the aforementioned works. Instead, Kolb's theory reduces the socio-culturally situated dialectic process of Dewey and Vygotsky to a primarily cognitively-rooted reflective process, with little or no attention to the subjectivity of one's reality or the social implications of one's actions (Oxendine, Robinson, & Willson, 2004). In turn, Quay & Seaman (2016) assert that experiential learning in OE is often reduced to a series of isolated instances of growth and development to be applied later in life, rather than being recognized as a present and continual process of transformation embodied in the whole of one's life experiences.

Likewise, more recent and most commonly referenced experiential processing models developed by Joplin (1995), Luckner and Nadler (1997), Priest and Gass (2005), and Rhonke and Butler (1995) emphasize the crucial role of processing (personal reflection and facilitator feedback) in cultivating meaningful learning. Personal reflection is a process through which students think about what they have experienced, explore how the experience influences

them in affective (feelings and emotions), cognitive (thoughts and ideas), and kinesthetic (physically) domains. By bringing awareness to the impact of an experience on oneself, students can then learn more about themselves and how they interact with the content of the experience. Subsequently, the student draws meaning from the experience that can be transferred and applied to future experiences. As Joplin (1995) described, the facilitator plays a key role as a guide throughout the process of reflection. As the learner engages in and subsequently debriefs a experience, the facilitator acts as a guide by providing feedback and support.

While conventional reflective learning models are effective in helping the student draw relevant affective, cognitive, and kinesthetic learning from their experiences, the models by and large fail to adequately address the socio-cultural context and embedded cultural messages inherent to the exchange. The result is a pedagogy all but devoid of critical opportunities to cultivate rich and authentic engagement among participants (Wattchow & Brown, 2011).

Instead, Gruenewald (2003b) insists that facilitation methods and processing techniques need to maintain a deliberate focus on the perceptual, sociological, ideological, political, and ecological contexts in which learning is taking place. For example, when reflecting on one's accomplishment of climbing a mountain, participants must focus on more than simply the physical tasks completed and the personal challenges overcome. They must be encouraged to consider the sociocultural history of the mountain, such as who has historically inhabited it, as well as the impact of colonialism and industrialization on previous inhabitants. Participants must also be impelled to examine the ecological impact of their presence on the mountain, as well as how the ecosystem in which they are traveling is

connected on a regional and perhaps global ecological level (Gruenewald, 2003a). For example, students traveling through desert environments might study the fragility of cryptobiotic soil, which can take 100 years or more to form, and is destroyed by a single footstep. Deepening one's contextual sense of place in terms of perceptual, sociological, ideological, political, and ecological contexts further strengthens the reflective process and promotes more meaningful personal development among participants.

Personal and social development. In addition to the emphasis of personal reflection and social context in OE , both of which are situated in sociocultural phenomena, another central aim of OE is learners' personal and social development (PSD), particularly through the use of personal challenge. While often lacking concrete definition, and historically emerging under different monikers such as *character development* or *personal growth,* PSD broadly includes aspects of trust, cooperation, and teamwork, as well as self-awareness, confidence, and resilience (Scrutton & Beames, 2015). These dynamics of personal and social development are particularly prevalent in adventure pursuits within the field of OE. For example, expeditionary learning experiences pose real life physical challenges, such as navigation, camping skills, hiking, rock climbing, and paddling; as well as opportunities for social growth and development, such as group travel, peer leadership, and collective problem solving (Holman, Goldenberg, McAvoy, & Rynders, 2003). Additionally, OE provides a novel environment in which participants can learn new concepts, ideas, and skills in authentic ways (Walsh & Golins, 1976).

In the 1940's, Kurt Hahn was one of the earliest and most articulate practitioners to espouse experience-based pedagogy in an outdoor context, to achieve what was referred to at the time as character-training (Freeman, 2010). Hahn founded a series of schools in Germany

and England aimed at training young men to become better soldiers, and ultimately more actively engaged citizens. Most notably, Hahn founded Outward Bound, which targeted the development of strength, character, and resilience among young men, and would eventually inspire the development of adventure education programs throughout the world. In addition to character training—which Outward Bound later re-framed as personal growth—Hahn stressed the importance of service learning as a fundamental endeavor of education (James, 1995). His early vision was "to train citizens who would not shirk from leadership and who could, if called upon, make independent decisions, put right action before expediency and the common cause before personal ambition" (James, 1995, p. 88). Recognized as a founding figure of OE, Hahn's idea of character development and civic responsibility remains an underlying philosophical axiom of OE, but is often reduced to an emphasis on personal growth through physical challenge, with little connection to the interpersonal or societal implications of the process (Warren, 2005).

Central to Hahn's philosophy about character development was the use of outdoor pursuits to promote personal and group development through challenge. Challenge was central to Hahn's approach to character development since it presented participants with very tangible opportunities to push personal limits and develop resilience through trial and error (Neill & Dias, 2001). And since adventure programs typically operate in (often remote) outdoor settings, and inherently involve a wide variety of actual and perceived risks, they offer authentic learning opportunities to students who are faced with real potential consequences. (Quinn, 1990).

While Hahn's foundational work largely focused on utilizing personal growth as a tool for developing more engaged and service-oriented citizenry, many recent models citing

Hahnian philosophical roots since the 1970's in the United States maintain more individualized cognitive distillations of his theory. For example, a study by Neill (2002) and Neill and Dias (2001) indicate a strong correlation between personal challenge and increased psychological resilience. However, they indicate that OE programs often understate the impact of social processes on the accomplishment of personal developmental aims, citing that negative behaviors on the part of peers significantly impact the overall growth of individuals in the group.

More broadly, Breunig and Rylander (2016) assert that successful personal growth depends on a sense of belonging, and OE practitioners need to actively contextualize the sociocultural realities that influence the way in which participants interact with the curriculum. For example, they describe stereotyping that takes place in wilderness medicine training, such as an openly lesbian woman who was assigned birth control as a medication during an emergency response simulation, and men telling each other to "man up" during a cold weather scenario. Such examples are often seen as isolated and insignificant, but in fact they represent a larger problem of European patriarchal hegemony that is prevalent in OE.

Challenge as a catalyst for growth. OE and particularly its sub-field adventure education, are rooted in the theoretical premise that people learn at optimum levels when pushing their physical and psychological limits in appropriate proportion to the actual physical and psychological risks that exist (Quinn, 1999). The use of challenge to inspire learning has been perhaps most concretely operationalized in the *adventure experience paradigm* (Priest & Gass, 2005), which purports that in order to maximize growth and learning in the outdoors, facilitators need to balance actual physical risk with participants' perception of risk and competence in a given activity.

It is worth noting that assumptions of universal success of challenge-based OE in promoting PSD is not universally substantiated, as evidenced in meta-analyses by Gillis and Speelman (2008), Hans (2000), Neill (2002, 2008), Neill and Richards (1998), and Scrutton and Beames (2015). For example, Neill and Richards (1998) reviewed research of personal and social development outcomes (such as self-efficacy, locus of control, cooperation, and social competence) related to over 12,000 participants in outdoor education programs of varying population, location, and length. The overall results indicated a "small to medium impact on typically measured outcomes such as changes in self-concept, self–confidence, and locus of control" and that overall the beneficial effects of OE seemed to be retained and further increased over time (Neill & Richards, 1998, p. 2). However, their results regarding the effectiveness of outdoor programs in helping participants achieve personal and social development varied significantly based on length of time in the field—with longer programs being more effective. Likewise, they found that participant demographics (i.e. young adolescents and adult-age participants) showed more positive results in areas such as improved self-concept, locus of control, and resiliency than late adolescents. Similarly, Hans (2000), and Neill (2002) found variance in outcomes related to gender, activity type, program philosophy, and perceived research bias, based largely on program duration and setting, with longer and more remote programs allowing for greater development to occur.

Inconsistencies in outcomes based on demographics and programmatic variances point to a pertinent underlying theoretical flaw of OE, which is the historically assumed universality of effective strategies utilized among any and all participants. Wichmann (1980) asserts that too often experiential pedagogy is enacted in a "culture free" context in which experience-centered goals merely replace content-centered goals without attention to the

diversity of experiences among various groups within society. For example, Davis-Berman and Berman (2005) discuss the problem of emphasizing the typical experiential challenge model of OE with at-risk youth. As noted above, the adventure challenge paradigm relies on matching participants' perceived limitations and the actual risks being undertaken at the edge of their abilities, in order to skillfully create a state of dynamic tension. When participants are taken to the edge of their comfort zone in this manner, they are able to expand their self-perception, confidence, and locus of control (Luckner & Nadler, 1997). Alternatively, Davis-Berman and Berman (2005) suggest that at-risk participants are often already experiencing significant anxiety due to a variety of life experiences. In contrast to more challenges, they need comfort, safety, and security in order to become receptive and cognitively able to enact personal change. Davis-Berman & Berman (2005) believe that outdoor experiences can indeed be a vehicle for inspiring growth, but using these experiences to create significant anxiety and increased perceived risk on top of existing trauma can be potentially damaging.

Young women in particular who are dealing with sexual abuse and other trauma are especially vulnerable to the ill-effects of increased psychological stress associated with the traditional challenge approach (Culp, 1998). Importantly, the aforementioned works do not broadly discount the efficacy of the adventure challenge model in cultivating growth, but rather highlight the way in which diverse methods are necessary in order to effectively serve diverse audiences. And while the adventure challenge paradigm maintains its effectiveness in a number of OE settings, criticisms such as those identified above represent broader critiques of its perceived universality. Specifically, the literature includes a number of articles proposing ways in which OE can be more encompassing of feminist perspectives, as well as

more attentive to and critical of the embodied hegemonic cultural ideals that underlie OE. These critiques and suggested remedies will now be explored.

Feminist critiques of Outdoor Education

In addition to problems associated with the assumed universal effectiveness of the challenge-based approach to OE, feminist theorists question the ways in which self-efficacy and leadership are defined. The literature reveals a recurring call for a feminist re-construction of the adventure challenge paradigm as conceived by Priest and Gass (2005), which focuses on physical and emotional challenge as a catalyst for personal growth. For example, Fullagar and Hailstone (1996), Mitten (1995), and Warren (1998) assert that challenge models and objectives centered on individual achievement, physical prowess, and personal challenge are traditionally masculine in scope, emphasizing self-determination and even competition within the context of already male-dominated endeavors. Shooter, Sibthorp, & Paisley (2009) point out that in OE, technical skills such as navigation, camp craft, and physical abilities are commonly referred to as "hard skills," while interpersonal skills such as listening, empathy, and problem-solving, are referred to as "soft skills." The authors suggest that possession of hard and soft skills are often attributed to male and female participants respectively, and the very terms of hard and soft skills:

> suggest a hierarchy of importance, where some individuals may perceive soft skills as less important than hard skills because soft skills sound ancillary to hard skills. Similarly, the terms hard skills and soft skills may influence an individual's thinking about the difficulty of such skills—hard skills being difficult to master and soft skills being thought of as easily obtainable. (Shooter, Sibthorp, & Paisley, 2009, p. 7)

A study by Whittington and Mack (2010) echoes Shooter, Sibthorp & Paisley's (2009) assertion, revealing that girls and young women in an adventure setting both valued and grew in areas of self-acceptance and confidence, perseverance, interpersonal relationships, and

personal voice or agency. Although girls and women achieved the same targeted physical tasks as their male counterparts, physical skill development and technical prowess were secondary outcomes of less importance to participants.

And even though the outdoors is viewed in OE as an equalizing venue, both women and men tend to gravitate toward roles as typically constructed by society. Bell (1996) and Warren (1996) explain that traditional gendered social roles, such as who cooks and who does the more challenging physical work often plays out in OE field experiences. Tangentially, conceptions of leadership in the outdoors mirror a broader societal preconception of leader as "European, able-bodied, autonomous, objective, and rational men who are predisposed to make sound decisions and be natural leaders" (Bell, 1996, p. 144). Leaders who fit these attributes are also often perceived as being predisposed to possess the technical skills addressed above. Therefore, as Mitten, Warren, Lotz, and d'Amore (2012) explicated, women often perceive an inherent bias that both assumes they are less technically savvy, and devalues the so-called soft skills which they value and to which they are perhaps more readily predisposed.

In contrast, feminist scholars emphasize the need for shifting the paradigm of what is possible, achievable, and deemed valuable in outdoor pursuits, away from a focus on individual achievement, personal accomplishment, and technical prowess. Instead, they view the outdoor experience as an opportunity for relational learning, collaboration, shared experience and personal healing (Kiewa, 1994; Mitten, 1999; and Warren, 1996, 1999). Mitten (1996) proposes that a feminist ethic of experiential education offers a much needed paradigm shift in OE. She describes that a feminist ethic is one based on caring for others in

a world constructed of relationships, rather than a place to necessarily push one's own physical and emotional limits.

Mitten explains that in patriarchal societies, ethics tend to be viewed as moral decision-making processes rooted in a fixed set of pre-determined and socio-culturally constructed principles. Therefore, in a masculine sense, ethics are driven by examining situations based on their adherence to or contradiction of those established principles, then determining a right or wrong course of action. For example, Moskowitz and Ottey (2006) discuss limitations of the *Leave No Trace* (LNT) ethic. LNT is a list of seven principles for reducing human impact on the natural world, and is widely accepted and utilized in OE. The authors critique LNT as setting an unrealistic expectation that humans can somehow have zero impact on the ecology of place, rather than encouraging humans to understand how they relate to and interact with a place. Rather than promoting a relational ethic of care for the land, LNT promotes a Eurocentric patriarchal industrial ideal that humans are somehow separate from nature (Simon & Alagona, 2009).

Mitten (1996) further explains that in contrast a feminist ethic is an ethic of care, directed from a place of compassion, empathy, and connection. Such an ethic of care extends beyond interpersonal interactions to also include attention to how humans interact with the natural world. In order to enact an ethic of care, participants must come to a mutual understanding of each other and their surroundings. Therefore, ethical decisions are made by considering the potential impact of the decisions on all parties involved, and working collectively to achieve mutually beneficial outcomes, rather than relying on a pre-determined set of principles as a decision-making rubric. In turn, Mitten asserts that a feminist ethic translates to a more caring leadership approach in which the development of rich reciprocal

relationships becomes a top priority, rather than the achievement of predetermined physical or social programmatic objectives. She states, “A leader’s ability to develop and maintain ethical caring relationships and to have this as the driving force behind programming is a crucial piece in the success of experiential education experience” (Mitten, 1996, p. 169) In practice, an ethic of care “requires collaboration between teachers and students, where curriculum is student-centered, but guided by a teacher who models respect for the students, all aspects of nature, culture, society, and self” (Litz & Mitten, 2013, p. 6). Ultimately, an ethic of care lays the groundwork for more equitable outdoor programs.

Cultural hegemony in Outdoor Education

Similar to identified problems associated with patriarchal sensibilities of leadership and the challenge paradigm in OE, the literature maintains additional critiques of the overarching Eurocentric and individualistic hegemonic pedagogy of the field (Bell, 1996; Frazer, 2009; Garvey, 1992; Mitten, D., Warren, K., Lotz, E., & d’Amore, C., 2012; Rose & Paisley, 2012; Warren, 1998, 2005; and Warren, et al., 2014). Such critiques respond to glaring disparities in participation along lines of race, ability, socioeconomics, and gender. Warren (1998) identifies ways in which certain historically marginalized groups, particularly based on racial identity and/or socioeconomic status have been largely, if unintentionally, alienated by OE. Overwhelmingly developed and facilitated by relatively affluent white, predominantly male leaders, OE embodies and maintains a number of cultural assumptions about economic and geographic accessibility to outdoor programs, and even predisposed interest in participating in outdoor pursuits. For example, access to OE programs and resources is a commonly identified barrier to individuals from lower socioeconomic groups,

due to the high cost of programs and equipment, and geographic access to the places in which such programs take place (Davis-Berman & Berman, 2009; and Sikorcin, 2003).

It has been identified that individuals from intersectional marginalized identity groups, such as black women, often feel particularly disenfranchised as disconnecting ideals related to race and gender are compounded (Mitten, et al., 2012). For example, Roberts & Drogin (1993) explain that representation of black women as participants or leaders in OE is relatively low. They identify a number of factors, that prevent greater participation of black women in outdoor education programming and leadership, including "historical oppression and racism; stereotyping by race and gender; lack of role models; insufficient exposure to activity options; limited accessibility to outdoor recreation areas; and oppressive economic conditions" (p. 85). Additionally, the utilization of challenge to foster personal growth and travel in remote landscapes are not universally valued along lines of race and class (Rose & Paisley, 2012).

In response to the disenfranchisement of certain demographic groups from OE, recent literature about social justice in OE offers curricular remedies to create more inclusive practices. Looking broadly at curriculum theory, Pinar, et al. (2006); and Pinar (2012); Rafferty (2011), describe curriculum as the entirety of an individual's situated learning experience in the context of a broader social, cultural, and political landscape. Viewing curriculum in this manner offers a theoretical lens through which many of the underlying disparities in OE can be viewed and remedied. Using a social constructivist curricular framework, OE can necessarily shift away from its focus on the individual experience, and adapt to more collectivist and inclusive aims and outcomes. According to Warren (1998), one way to shift from an individual to a collective focus is to avoid prescribed facilitation

methods, which may unintentionally alienate participants from diverse backgrounds. She explains that one-size-fits-all or rote methods may ignore important social and cultural differences that exist among participants. Additionally, Breunig (2005), Garvey (1992), Roberts and Rodriguez (1999), Rose and Paisley (2012), Warren (2002), and Washington & Roberts (1999) suggest that increased curricular development and professional training around issues of privilege and marginalization, cultural competency, and multiculturalism are needed in order to transform OE into a more inclusive field.

Increasing a focus on issues of power, privilege, and marginalization in OE effectively highlights the complexity and prioritizes the importance of lived experience, which encompasses the multiplicity of intersecting experiences, identities, and social conditions experienced by participants. Wattchow, et al. (2014) describe lived experience in the context of socioecological education as the subjective phenomenological culmination of one's perceptual, sensory, kinesthetic, social and cultural experiences that bracket how one interacts with the learning experience. To effectively and authentically structure educational experiences within a socio-culturally inclusive paradigm is to ensure the ability and flexibility of students to reflect on the meaning of their dynamic and individual lived experiences within experiential pedagogical frameworks. This may also include active involvement of diverse leaders to more authentically reflect participant demographics. Achieving greater inclusion and equity in OE will require the development and inclusion of new aims and outcomes based on the theoretical suppositions identified in the previous paragraphs. As has been identified, the central aims and purposes of modern OE present significant problems associated with a modern departure from socially situated experiential and constructivist pedagogy, as well as pedagogical disparities related to sociocultural

identities. It is now important to explore additional aims and purposes of OE related to the natural world.

Environmental aims of Outdoor Education

In addition to reflective learning, and personal and social development, another central aim of OE is connecting students with nature and cultivating environmental stewardship. While increasing environmental awareness (including the scientific study of and education about nature) is more conceptually central to Environmental Education, nature plays a prominent role in OE as a programmatic venue, due to the ability of nature to present real-life obstacles and to enhance aforementioned aims of personal and interpersonal growth (Gilbertson, et al., 2006). Likewise, nature offers respite from the busy-ness of modern life, allowing for participants to become immersed in the learning at hand without as many distractions as are found in a typical day in urban environments. Speaking more broadly, however, the importance of nature in OE is quite complex and has deep roots in environmental education and classical learning theories.

From an epistemological perspective, Rousseau in the 18th century believed that the Enlightenment movement threatened to destroy humanity through modernization, and the aims of society and education should instead maintain a focus on important aspects of humankind's fundamental relationship to nature (Smith & Knapp, 2011). Likewise, Pestalozzi and subsequently Agassiz and Geddes emphasized the importance of highlighting scientific knowledge of the natural world at the center of education, as the plants and animals comprising our surroundings are inextricably linked to our existence as humans (Smith and Knapp, 2011).

In the mid-20th Century, Sharp (1943) and Van Matre (1972) asserted that certain subjects are best taught outdoors through direct contact with the natural world. They asserted that the process of learning outdoors provides opportunities for personal reflection and social development, and also inspires an appreciation for and connection to the environment. As briefly illustrated here, the physical environment is integral to outdoor education in a number of ways, but is often unfortunately reduced in importance to a mere backdrop for the activities being undertaken by program participants (Baker, 2005). The idea of nature as a setting for the educational experience is not inherently negative, but the mere close proximity of nature does not inherently foster a meaningful sense connection or stewardship between it and the learner (Haluza-Delay, 2001).

In response, recent scholarship in OE equates a growing disconnection between learner and nature as a product of the Western paradigmatic view of nature as a proprietary resource or commodity (Baker, 2005; Haluza-Delay, 2001; and Roberts, 2008). Not only does a proprietary notion of nature represent an anthropocentric ideology about the purpose of the environment but it also speaks to the individualistic ideals of modern society. Furman and Gruenewald (2004) explain that the dominant cultural pattern of the industrialized world "lacks the conceptual vision to acknowledge ecological problems or to see the social justice problems humans create for themselves when they damage their nonhuman environments" (p. 53). Instead, social issues are approached separately from ecological issues, which ultimately means that neither set of problems is being fully addressed. Most often in OE, the focus remains heavily on personal and interpersonal issues, worked out in a natural setting, and the crucial contextualization of ecological place is underemphasized.

In order to broaden the aims of OE from primarily personal and interpersonal to a more ecologically grounded pedagogy, it is necessary to draw on theories that specifically address human relationships to the natural world. The following sections will discussed place-based curriculum and pedagogy in the context of OE, followed by the related philosophies of social ecology and ecological justice. While the fundamental idea that human behavior is inextricably linked to environmental processes is not new, renewed attention to this reality has emerged in recent OE literature.

Place-based curriculum and pedagogy. In the context of Outdoor Education, recent scholars have promoted the idea of *place-based pedagogy,* which broadens the concept of place to include both natural and socio-cultural locations in which learning is occurring. David Sobel (2005) coined the term *place-based education,* which refers to the utilization of local landscapes in enhancing academic disciplinary study, such as science, mathematics, and literature, while also promoting environmental stewardship and community engagement. Knapp (2005) further supports the notion of place-based education, stating it is necessary to engage the learner in active study of and interaction with the landscape, its natural cycles, and its social and ecological history. In order to richly connect with the land, it is necessary to develop a meaningful and relevant personal relationship to it. Likewise, through direct contact with nature, participants are more likely to develop a sense of stewardship for it, ensuring its care for generations to come (Goralnik, 2011). Specifically in the context of OE, Wattchow and Brown (2011), developed a theoretical framework of place-based pedagogy, which categorizes place into four elements: the sociological, the ideological, the political, and the ecological (Wattchow, et al., 2014).

Here, it is important to identify another critique of OE, which is a tendency of programs and practitioners to utilize Native American symbols, stories and ceremonies in attempts to help participants cultivate a deeper connection to the natural world (Quinn & Smith, 1992). This is problematic, as it often results in the essentialized portrayal of indigenous cultures and appropriation of indigenous cultural practices. For example, and Lowan (2009) explain that summer camps and adventure programs often incorporate vision quests, sweat lodges, fasts, council fires, and giving Indian names to participant as rites of passage. The intent of these practices is to deepen participants' sense of place and teach about historic land-based cultural practices. However, as an unintended consequence, Hamilton (2004), Lowan (2009), and Oles (1995) assert that such practices desecrate sacred objects and rituals while also perpetuating antiquated and racist conceptions of indigenous cultures and people. Similarly, programs often present cultural history lessons about indigenous people, which often include inaccurate historical and cultural references, and lack present-day contextualization of indigenous people and culture. Hamilton (2004) challenges outdoor educators that if teaching participants about indigenous cultures is truly necessary in their programs, they must find ways of doing so that address the historical and contemporary realities of colonialism. Lowan (2009) also suggests that practitioners work to develop ideas of land ethic that are rooted in histories and practices that are culturally relevant to participants, rather than coopting indigenous stories and traditions.

One such example of a contemporary non-indigenous land ethic is found in Aldo Leopold's (1947) seminal work *A Sand County Almanac.* Leopold conceptualizes a *land ethic,* which offers a practical relational approach to connecting with nature, in which the biotic community is inextricably linked to the human community. Such a relationship is built

through observing, studying, understanding, and ultimately caring for the natural world. By viewing the natural world as an inextricable partner of the human community, when one cares for humanity one must also care for the natural world. Leopold's ideal challenges the notion of land as a commodity or resource, which is prevalent in modern society. And although many outdoor educators have embraced this idea in theory, outdoor programs largely fail to build direct and meaningful connections between learners and the natural world (Baker, 2005; and Irwin & Straker, 2014).

It is worth noting that the literature provides powerful examples of OE experiences effectively connecting people to local landscapes. For instance, Cheeseman (2015) discusses how encounters with wildlife in their natural habitat promotes a sense of understanding and awe, which if processed effectively can translate to a holistic sense of appreciation for the natural surroundings found in one's home environment. Similarly, Stewart (2004a, 2004b) describes that by exploring the socio-political, economic, and ecological history of the Australian Murray River corridor while on a paddling expedition, students were able to develop a deep connection to place and a sense of stewardship for it. Although there are several examples of OE programs that effectively emphasize the relational ecological context of the experience, a place-based paradigm has not been widely adopted in OE. And in light of earlier identified critiques of the core aims and outcomes of OE with regard to cultural hegemony, it is necessary to explore pedagogical and curricular approaches that promote a more ecologically grounded and social justice oriented paradigm in OE.

Social ecology. Social ecology provides a philosophical foundation for socioecological education, which framed this study. Social ecology is a field of study premised on recognizing the complex and interdependent manner in which humans and

natural environments interact with one another. According to Berkes, Colding, and Folke (2003), social ecology emerged in response to what was viewed as a dichotomous view of social and natural sciences as existing in isolation from one another, and seeks to solve complex social and ecological problems through multi-disciplinary discourse. Social ecology is premised on the notion that relationships, influences, and causation between human and natural systems are multidirectional rather than unilateral, as is often traditionally posed by scholars in separate fields of natural and social sciences (Redman, Grove, & Kuby, 2004). Furthermore, social ecology focuses more robustly on the ways in which social structures (political, economic, educational, etc.) interface with biological, geological, and ecological systems. Broadly, social ecology aims to address both ecological and social concerns, using an interdisciplinary systems-based approach to creating sustainable solutions (Bookchin, 1990).

As scholars push OE to refocus its central aims and outcomes to be more integrated, interdisciplinary, and socially and ecologically grounded, social ecology offers important philosophical perspectives. Social ecology's understanding of human interaction with biogeophysical systems as being interconnected, complex, and scalable provides a reminder that the personal and interpersonal experiences taking place in OE are situated within a broader social and ecological landscape. Engaging in dialectical explorations of the relationship between humankind and the biogeophysical world allows teachers and participants to engage in thoughtful discourse about the ways in which humans shape the natural world and vice versa (Brofenbrenner, 1976). Such discourse has the potential to support the central aims of OE by fostering deeper connections between participants and the natural world, encouraging more robust environmental stewardship, and inspiring more

meaningful and lasting personal growth. Likewise, social ecology offers an ecologically grounded lens for understanding social justice.

Bookchin (1990) not only describes the interdependence of social and ecological systems, but perhaps more significantly asserts that the problems facing the natural environment such as exploitation of resources for profit, geographically disproportionate pollution, and overconsumption directly parallel a social mindset that promotes the exploitation and mistreatment of humans along economic and cultural lines. He explains that such exploitative practices are products of agriculturalization and subsequent industrialization of human societies since the mid-16th Century. Bookchin's assertion mirrors eco-feminist assertions that equate the domination and exploitation of nature by humans to the subjugation and exploitation of women in society (Furman & Gruenewald, 2004). Both Bookchin and eco-feminist scholars such as Mies and Shiva (1993), Salleh (1997), and Warren and Erkal (1997) attribute the paralleled treatment of nature and women to capitalist patriarchal social ideals that create rigid hierarchies and value profit and consumption over social equality and ecological integrity.

Further elucidating Bookchin's work, Tokar (1998) explains the role of social ecology in identifying "dialectical relationships between the social and ecological dimensions of life, seeking to reveal both the social and political roots of ecological problems and the origins of social problems in the culturally imposed alienation between human beings and the rest of the natural world" (Tokar, 1998, pp. 139-140). He explains that social ecology challenges anthropocentrism and promotes ecocentrism, which "places primary value on the ecological relationships among people in a community, among communities sharing one of the earth's diverse bioregions and among bioregional confederations joining cooperatively to

sustain the earth we all share" (Tokar, 1998, p. 139). In OE, incorporating a more ecocentric relational understanding of humans to the natural world has the potential to counteract reductionist views of nature as a disconnected backdrop for adventure activities.

Not only does an ecocentric view emphasize the importance of maintaining a robust and diverse biosphere, but also promotes that "differences among people would be celebrated as essential aspects of ecological diversity and never used as a basis for one group of people to dominate any other" (Tokar, 1998, p. 139). While some social ecologist literature emphasizes parallels between domination of the environment and systems of power and privilege in society, the field overall lacks sufficient attention to concerns of social justice. Socioecological education maintains similar shortcomings. In order to fully understand socioecological education, it is necessary to explore concepts of social and ecological justice.

Social and ecological justice

Although Wattchow, et al.'s (2014) model of socioecological education does not deeply explore social justice, the theoretical framework for this study included an added emphasis on social justice. As earlier discussed, there is a resounding call for increased attention to social justice in OE. Within OE literature the term *social justice* is often loosely defined and operationalized, and there is little evidence as to whether or not practitioners are taking necessary steps to build more socially just programs (Warren, et al., 2014). In order to understand social justice, it is useful to first explore the prevailing modern concept of *justice.*

Justice has been broadly and diversely defined in academic literature throughout the past several decades. A comprehensive analysis of justice scholarship and literature is well beyond the scope of this study. However, the following section serves to contextualize justice as a foundational axiom of this study. Ultimately social justice will be woven back into

context in OE and within the broader theoretical framework of socioecological education utilized in this study. The following sections will explore the concept of justice in a social, environmental, and ecological realms.

Justice as equity. Society is presently situated in a neo-liberal capitalistic era, therefore liberal democratic explanations of justice are often utilized in order to provide a practical and egalitarian approach to understanding justice. As prominently evidenced by Rawls (1999, 2001), liberal democratic theories of justice focus on rights, resources, and opportunities as obtained by individuals and groups within society. Thus, the liberal democratic view rejects the classical utilitarian notion of justice, which purports that "society is rightly ordered, and therefore just, when its major institutions are arranged so as to achieve the greatest net balance of satisfaction summed over all the individuals belonging to it" (Rawls, 1999, p. 20). Rawls asserts that within the utilitarian paradigm, the greater collective good of society is often achieved at the expense of those who are socially and economically disadvantaged.

Instead, Rawls acknowledges the fundamental societal truth that people are inherently born into positions of privilege and disadvantage, and thus the aim of justice should be to account for the influences and impacts of those social positions on individuals within society. He states "justice denies that the loss of freedom for some is made right by a greater good shared by others. It does not allow that the sacrifices imposed on a few are outweighed by the larger sum of advantages enjoyed by many" (Rawls, 1999, p. 3). Instead, justice is understood as being a state of equal opportunity and accomplishment among all individuals in which dynamics of advantage and privilege have been accounted for and compensated. Rawls goes so far as to state that inequality is actually justifiable when it serves the needs

and purposes of those who are most disadvantaged in society. This distributive theoretical framework is practical in scope and outlines a schema for achieving social justice and equality, and hence justice, within a neo-liberal capitalist sociopolitical context. However, it does not inherently lead to critical analyses or reformation of the fundamentally problematic social ideals themselves.

To illustrate the difference between content and context of justice, Giroux (2001) describes the ontological difference between an ideolog*y* being that which is situated within a structural context, such as a school, and the structure itself being an embodiment of the ideology. In other words, while distributive justice within an established framework increases resources and opportunities for a larger number of people, it fails to address the fundamental embodied injustices of the system itself. Applebaum (2003) and McLaren (1997) echo Giroux's assertion, explaining that structural ideologies not only preserve dominant values and biases, but also in turn perpetuate systems of privilege and marginalization. This philosophical difference is essential in understanding why distributive frameworks of justice may not adequately serve to disrupt the root causes of injustice and may fail to allow true agency among stakeholders, such as students in the context of education.

To this end, critics of Rawls and other liberal democratic scholars assert that distributive models of justice fail to promote or even explore the possibility of a critical or radical transformation of democratic society, which may lead to more truly equitable social configurations. Boyles, Carusi, and Attick (2009) explain that although distributive justice altruistically aims to achieve equitable distribution of wealth and prosperity among all members of society, it is fundamentally built on the meritocratic idea that all people should be rewarded based primarily on their achievements. And although models of distributive

justice maintain the caveat that people from historically marginalized identity groups may require additional support and resources in order to achieve at equal levels to their majority-culture peers (Liu, 2011), "the distributive paradigm argues for equality of distribution, and when this equality is met, their claims for justice are completely satisfied" (Boyles, Carusi, & Attik, p. 37, 2009). Ideologically, the result is a validation of the efficacy of a meritocracy, and of the actual measures of merit and success, which are themselves inherently value-laden and most often embody hegemonic social ideals. While the end goal is equality, there is not necessarily an impetus to challenge or transform the existing institutions and structures in which that equality is being attained (Knight, 1998). This reality poses a significant problem in that it does not necessarily address the structural conditions that lead to injustice, which in turn precludes the ability of stakeholders to critique and transform the value of rights being distributed. Hence, in order to be successful, individuals from historically marginalized groups must assimilate into dominant modes and measures of achievement and success. Maintaining an understanding of justice beyond distribution is critical to the present study. In particular, socioecological education requires that participants maintain agency in the learning process, which fundamentally invites their input what is taking place throughout the learning process (Wattchow, et al., 2014). Likewise, as discussed above, if the paradigm of OE is going to be refocused as more inclusive, there is a need to transform hegemonic notions of its very aims and outcomes (Warren, 2005).

Social justice as a relational and anti-oppressive process. Sen (2002) and Young (2011) and assert that rather than viewing social systems as static, a continual active acknowledgment and critique of the conditions of privilege and disadvantage in society leads to a clearer understanding of how and why inequities exist, and how they impact the lived

experiences of certain groups and individuals within society. Sen (2002) asks if we fundamentally presuppose that equality is important to begin with, then what is the equality to which we are aspiring? Sen asserts that any agenda for justice and equality maintains a certain amount of political and social assumptions, inherently prioritizing what types of equality are most important to be attained, while others are being perhaps secondarily targeted or inadvertently ignored. Furthermore, if the idea that justice can be attained by measuring the distribution of goods, resources, or even power, there exists an underlying assumption of normativity within that system, that what is being distributed is universally desirable, and the way in which it is being distributed is inherently just. Young (2011) explains,

> For a norm to be just, everyone who follows it must in principle have an effective voice in its consideration and be able to agree to it without coercion. For a social condition to be just, it must enable all to meet their needs and exercise their freedom; thus justice requires that all be able to express their needs (p. 34).

Instead of seeking to achieve equity within the current social structure, Young encourages the ongoing active transformation of the structure itself, so that all people may experience agency, belonging, and full participation in society.

The framework of justice proposed by Young provides a foundation for understanding social justice in the present study. Social justice in OE requires a shifting paradigm of its central aims and outcomes, as well as the inclusion of diverse voices throughout the learning process. In the context of socioecological education, according to Wattchow, et al. (2014), justice is embodied in the concept of agency, which they describe as "individual capacity to act independently and make free choices" (p. 38). Justice in OE requires "the development of learning contexts that enable the promotion of agency and active participation amongst learners" (Wattchow, et al., 2014, p. 37). Furthermore, agency

requires the ability of stakeholders to determine aims and outcomes of the learning process, as well as influencing the larger structures (social, political, economic, cultural) that situate the learning process (Wattchow, et al., 2014).

Adding to Wattchow, et al.'s (2014) model, justice in the context of this study requires that OE practitioners not only maintain an awareness of how social systems and structures function, but also recognizing the prevailing power dynamics and oppressive systems that within situated structures. In order to be truly social justice oriented, practitioners must actively work to challenge and transform systems of oppression within the context of OE ideologies and programs.

Justice as ecological justice. Furthering the conversation of justice in the context of OE requires going beyond the sociocultural realm and prioritizing consideration of the ecological environment as an integral relational part of the learning process. As identified by Bookchin (1990), concerns of justice in the social realm mirror concerns of justice in the ecological realm. Therefore, it is necessary to explore theories of justice that incorporate both social and ecological considerations.

McLaughlin (2001) asserts that concepts of justice as defined separately in both sociological and ecological realms maintain an "inability to capture the dialectic between structure, agency, and the environment" (p. 12). Similarly, Bowers (2002) agrees that social discourse should be emancipatory and dynamic. He is highly critical of critical pedagogues such as Freire (1968, 1985), Giroux (1997), and McLaren (1989, 1997), pointing out that the mere language used by these scholars is highly anthropocentric, and intrinsically synonymizes change with progress. He cautions that the root metaphors of the critical Marxist pedagogical paradigm are akin to the language of growth and development used by

purveyors of industrialism, capitalism, and consumerism, viewing society as necessarily evolutionary in scope, and often chiding or disregarding the traditions of preceding generations. In other words, both capitalism and critical pedagogy maintain the individual human being as the primary unit of importance and technological progress as imminent and desirable when determining the aims of society. Bowers warns,

> The deep cultural assumptions that underlie the industrial and consumer dependent form of culture as well as an understanding of how the languaging patterns of different western cultures create the individual psychology that accepts consumer dependency and environmental degradation as a necessary trade-off for achieving personal conveniences and material success (Bowers, 2002, p. 30).

And while Bowers acknowledges that justice requires attention to socio-political inequalities, and thus the transformation of oppressive structures and practices, he is concerned that humans are becoming less aware and less responsive to the ecological context in which the process of liberation is taking place. Thus, humans are rapidly and flagrantly exceeding the carrying capacity of the planet alternatively, he calls for an eco-justice paradigm, which maintains at its center a consciousness of the reciprocal relationship between humans and the natural world, and thus views the environment as a stakeholder in critical conversations about justice.

Furman and Gruenewald (2004) echo Bowers, stating that issues of environmental justice and social justice are inseparably linked, adding that social inequities in environmental and social arenas typically work to the favor of privileged groups and to the detriment of disadvantaged groups in society. This means that issues of social inequality, such as economic disparities, gaps in school achievement, and unequal access to quality healthcare mirror environmental issues, such as where hazardous waste is stored, the location

of quality urban green spaces, and the presence or absence of environmental education in schools. Furman and Gruenewald (2004) note:

> Most current discourses on social justice are incomplete because they are concerned exclusively with human beings and fail to acknowledge the interdependence of social and ecological systems. This anthropocentric orientation further reinforces assumptions about the legitimacy of existing cultural patterns (e.g., economic expansion and hyperconsumerism) and lacks the conceptual vision to acknowledge ecological problems or to see the social justice problems humans create for themselves when they damage their nonhuman environments. (pp. 52-53)

The paralleled mistreatment of nature and historically marginalized groups has been documented extensively under the moniker of environmental justice, a field which is primarily concerned with "the principle that all people and communities are entitled to equal protection of environmental and public health laws and regulations" (Bullard, 1996, p. 493), often focusing on issues such as the "proximity of locally unwanted land uses (LULUs), such as commercial hazardous waste facilities, landfills, low-level nuclear waste sites, and Superfund sites to communities of low-income and nonwhite populations" (Tarrant & Cordell, 1999, p. 19).

Alternatively, the literature points to the development of a socioecological framework for understanding and enacting social and ecological justice in education, and particularly OE, as a remedying venue for blending social and ecological sensibilities about justice, as it is comprised of "intentionally designed experiences that use the outdoor as the primary medium in which learning occurs" (Rose & Cachelin, 2014). Furman and Gruenewald (2004) are careful to iterate that a theory of socio-ecological justice should in no way disavow or dilute social justice concerns, nor should the ecological environment be seen as an add-on to social justice issues being addressed. Instead, it is understood that issues of social and economic justice are inherently embedded in a larger ecological framework. Likewise, they

draw on theories of environmental justice, eco-justice, and eco-feminism, all of which liken society's subjugation of the environment with subjugation of people along lines of race, class, gender, and other identity dimensions. The paralleled subjugation of people and the environment understood within socio-ecological justice is central not only to understanding dynamics of privilege and disadvantage in society, but also in understanding the neo-liberal capitalist view of nature and people, and how both nature and people are treated as commodities in both industry and education.

As outlined above, justice in the context of OE must be understood in terms of both its social and ecological importance. The theoretical framework for the present study drew heavily on Wattchow, et al.'s (2014) socioecological education model. However, the model does not explicitly include social and/or ecological justice as a key principle of socioecological education, although it is embodied in the authors conceptualization of agency. Therefore, the present study added social justice as a key construct of socioecological education. Social justice in this study recognizes and operationalizes the inextricable link between social and ecological justice, and maintains an awareness of the intersectionality of the two. The following section will outline the key constructs and attributes of socioecological education as utilized in this study.

Theoretical framework

The preceding pages describe prevalent aims and outcomes of OE, as well as a Number of scholarly critiques of OE curriculum and pedagogy. The summation of these critiques is a call for the following changes in OE:

- A return to more robust socially oriented experiential and constructivist pedagogy

- Increased recognition of and attention to curricular hegemony, and thus he implementation of more socially just practices
- Utilization of place-based pedagogy to deepen connections to the natural world and broaden understandings of place as sociological, ideological, political, and ecological
- Greater integration of social justice and ecological connectedness into OE curriculum and pedagogy

Considering identified changes in OE as explicated in the literature, a fresh paradigm is needed. Socioecological education addresses and meets many of the needs identified, and may offer a powerful paradigm shift in the field of OE.

As identified in Chapter 1, the central purpose of this study was to determine the extent of post-secondary Outdoor Education faculty's perceived knowledge, espoused beliefs, reported values, and reported practice related to socioecological education. It is important to note that the existing socioecological modeling, such as Wattchow, et al.'s (2014) *The Socioecological Educator* focuses on the implications of a socioecological education on the participant experience. This did not seek to examine the effectiveness of socioecological education on participant experience, but rather explored the ways in which socioecological education informs faculty practice. In order to effectively explore the extent of post-secondary Outdoor Education faculty's perceived knowledge, espoused beliefs, reported values, and reported practice related to socioecological education, it was necessary to define the key constructs and attributes of socioecological education as they were conceived in this study.

The theoretical framework for this study drew heavily on Wattchow, et al.'s (2014) model, as described in *The Socioecological Educator*. Additionally, the theoretical framework for this study included an increased focus on social justice (North, 2006), and Young, 2011) and ecological justice (Bowers, 2002), and increased attention to social constructivism as described by Petrová (2013) and Gredler (2012). The remainder of this chapter will describe the integrated approach of the socioecological education model, as well as explanations of the constructs of socioecological education and their attributes, as conceived in the present study. These constructs included 1) Place-based, 2) Agency and Participation, 3) Social Justice, 4) Experiential Pedagogies, and 5) Lived Experience. The attributes described, which comprised the constructs for this study will be operationalized in Chapter 3.

An integrated model. Wattchow, et al. (2014) describe socioecological education as a process rooted in complex and multidirectional layered relationships between individuals and natural and social systems; and filtered through personal, social, historical, political, cultural, economic, and ecological lenses. In order to effectively navigate these complex relationships, the authors explain that the teacher-centered power structure of traditional learning processes needs to be transformed. Instead, the learning process must be student-centered. This allows the learner to explore and draw meaning from the learning process through the lens of their own situated experience within the broader socioecological world. The authors identify that earlier socioecological models ultimately target behavioral adaptation or change as a primary outcome for the learner. Instead, their model seeks to "develop people's understanding of their experience within the context of their social ecologies through education" (Wattchow, et al., pp 65-66). In order to do this, they explain:

> A socioecological approach suggests that redefining power relationships within education requires an understanding of where people have come from and where they are (being place responsive), what experiences they bring with them (lived experience) and a curriculum that is meaningful, relevant and useful for them (agency and participation). Central to this process is developing pedagogical approaches that best suits the learners we are working with (drawing on concepts from experiential pedagogies). (Wattchow, et al., 2014, p. 64)

Ultimately, the parenthetical constructs outlined above work in concert with one another to cultivate rich and meaningful learning processes in which "lived experience and place [are] crucial foci for the Socio-Ecological Educator that attunes them to the experience of the learner; experiential pedagogies becomes the preferred teaching method; and agency and participation the ultimate aim" (Wattchow, et al., 2014, p. 65). Figure 1 depicts Wattchow, et al.'s (2014) socioecological education model, highlighting the fluidity of experience centered on the personal, and rippling outward within the context of communities and environment (natural, built, and policy). Likewise, the experiences of people, communities, and environments influence each other dialectically through time, between past, present, and future. Additionally, Figure 1 illustrates the way in which experience and context, pedagogies and practices, and meaningful educational experiences are interwoven and serve as a foundation for understanding the complex relationships between individuals, communities, and socioecological environments.

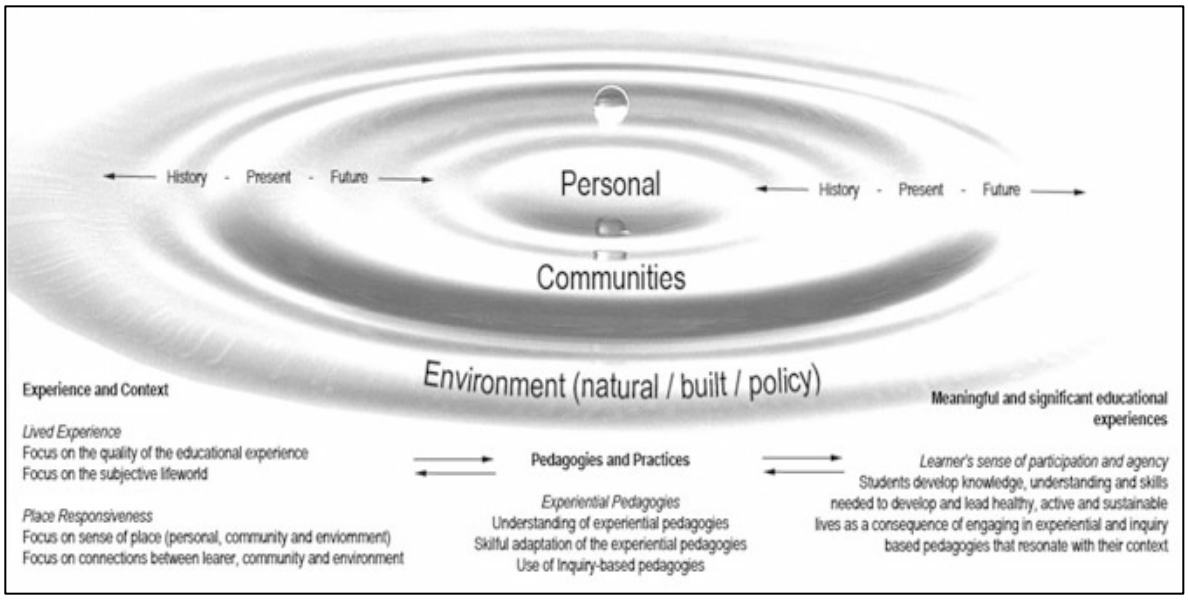

Figure 1. Visual depiction of the socioecological education model, originally presented as Fig. 3.1: A framework for the socio-ecological educator *in* The Socioecological Educator *(Wattchow, et al., 2014, p. 65).*

For the purposes of this study, it was critical to recognize that social and ecological justice are not explicitly discussed or depicted within Wattchow, et al.'s (2014) model in a direct manner. And although the aim of justice is implied in discussions of teacher-learner power dynamics and in the sociocultural and socioeconomic historical context of place that are central to the model, justice is not given sufficient attention to meaningfully address persistent shortcomings of OE as identified by Warren, et al. (2014). Therefore, this study extends Wattchow, et al.'s (2014) model to include social justice as a key principle to complement and strengthen the model's existing principles.

Social justice is being added for two primary reasons. First and foremost, it encourages constant attention to social dynamics of privilege and disadvantage that exist within the learning environment and in the broader social context of education. Such recognition is a central focus of underlying theories influencing socioecological education, including social ecology (Bookchin, 1990; Tokar, 1998) and eco-pedagogy (Bowers, 2002;

Furman & Gruenewald, 2004), as well as a factor needing greater attention specifically in the context of OE (Breunig, 2005; Frazer, 2009; Furman & Gruenewald, 2004; Rose & Paisley, 2012; and Warren, 1998, 2005). The literature makes a compelling call for more direct attention to social justice, and socioecological education provides a fitting venue for effectively integrating social justice.

Second, a deliberate focus on social justice serves to strengthen the work of Wattchow, et al. (2014) by providing a catalyst for exploration and change within the learning process. Dynamics of privilege and disadvantage can be seen at all levels of personal, interpersonal, institutional, and social experiences (Bell, 2007). Dynamics of privilege and disadvantage are central to social justice as defined in this study (North, 2006, Young, 2011), as they influence human relationships at all levels identified above. Therefore, in the context of socioecological education (illustrated in Figure 1), underlying dynamics of privilege and disadvantage play an inherent and critical role in the way students navigate their experiences personally, in community, and within broader socioecological environments. Likewise, the way in which students engage with experience and context, pedagogies and practice, and the meaning they draw from the experience are inherently influenced by relational social dynamics of privilege and disadvantage. Therefore, attending to social justice as an additional theoretical construct to Wattchow, et al.'s (2014) model allows for a more robust and critical examination of how learning is experienced by individuals and collectively within socioecological contexts.

Ideally, socioecological education must be understood as a fully integrated model, in which the constructs of place-based, agency and participation, social justice, experiential pedagogies, and lived experience work in concert with each other. However, this study

recognized that current practices in OE may not embody this holistic ideal, but specific aspects of the key socioecological constructs are likely being addressed in OE. Furthermore, the aim of this study was to statistically describe the extent to which faculty are engaged in socioecological education in OE as a whole practice as well as in its discreet parts. Therefore, the following section describes each construct as it was defined and examined in the context of this study.

Place-based. Drawing on Wattchow and Brown (2011), place is understood as a culmination of social, historical, cultural, political, ecological, and economic realities situated in a particular geographic space. Place-based education involves weaving in these identified attributes of place throughout the educational experience, so participants may develop a deeper and more holistic sense of place. For the purposes of this study, attributes of place based education included:

1. Examination of significant historical aspects of the social, political, cultural, and economic realities of the immediate and surrounding location in which the learning experience is happening.
2. Exploration of the immediate ecological landscape, including identification of flora and fauna, geological history, and historical and present impacts of human activity on the immediate landscape.
3. Consideration of the ecological impact of the activities being undertaken during the learning experience. This includes the immediate impact of activities on the local landscape, as well as the broader ecological footprint, such as where and how outdoor equipment is manufactured, travel required to get to the present location, and so on.

4. Reflection on personal relationship to place. This includes how individuals and groups interact with and connect with the immediate and surrounding locations in physical, cognitive, and affective domains. Reflection on place relationships must also acknowledge the ways in which the experience is culturally and socially situated.

Agency and participation. Wattchow, et al. (2014) maintain that in order for participants to have rich and authentic learning experiences, they must be fully invested and engaged in the learning process. Participant involvement must extend beyond mere participation in learning activities and adherence to established expectations and intended outcomes. Rather, full participation requires that participants are provided the opportunity to help shape the aims and outcomes of the experience and direct certain aspects of the learning process to meet their individual and collective needs. For the purposes of this study, attributes of agency and participation included:

1. Some flexibility in the aims, outcomes, and expectations of the learning process. Students are empowered to influence the aims, outcomes, and expectations to more effectively meet their individual and collective needs.
2. Participants have voice and choice throughout the learning experience. Voice means their input is actively sought and considered when determining certain appropriate aspects of the learning process. Choice means participants are given options within an appropriate realm of possibilities for how the learning process unfolds.

3. Participants maintain a sense of investment and ownership of their own learning. They are guided through reflective processes that allow them to glean personal relevance from learning activities.

Social justice. Drawing from the work of Young (2011), social justice is conceptualized in this study as an active critique and transformation of interpersonal, institutional structural, and systemic social power dynamics, which influence the learning environment. This study recognizes that social justice is a relational phenomenon and is a process in which individuals and groups are engaged, rather than a defined targeted outcome (North, 2006). Furthermore, in the context of this study, social justice maintained an awareness of eco-justice (Bowers, 2002), which acknowledges the paralleled dynamics of privilege and oppression that influence both social and ecological systems. Social and ecological justice are critical to meaningful socioecological education, as it allows teachers and participants to maintains a focus on the broader social and ecological constructs of privilege and oppression that impact the learning experience. In the context of socioecological OE, social justice may be enacted in and through explicit and implicit curricular and pedagogical means. For the purposes of this study, attributes of social and ecological justice included:

1. Acknowledgement of social dynamics of privilege, marginalization, and oppression within the learning environment, based on individual identities and interpersonal relationships.
2. Acknowledgement of the broader social dynamics of privilege, marginalization, and oppression in society, which impact the individual and collective experiences of people based on their cultural identities.

3. Recognition of the ways in which human interactions with the environment mirror human social interactions, with a particular awareness of the ways in which human subjugation and subjugation of the environment are related.
4. Active efforts to challenge and transform social dynamics of privilege, marginalization, and oppression within the learning environment.

Experiential pedagogies. As discussed earlier in this chapter, experiential education and constructivism remain at the core of OE philosophy and practice. Dewey (1938) and Vygotsky (1978) are largely credited with providing a foundation of modern experiential education and OE. Experiential learning maintains that students actively reflect on their experiences and apply what they learn throughout a continuum of life experiences (Joplin, 1995). Additionally, individual and group learning experiences are socially situated, and are both informed by and inform social realities. Social constructivism also speaks to this phenomenon, asserting that personal knowledge and social realities are constructed through a dialectic process between learners and teachers, situated within embodied social norms, messages, and practices. Wattchow, et al. (2014) emphasize the importance of experiential pedagogy in socioecological education, as it illuminates the broader meaning and context of learning. This study extends Wattchow, et al.'s (2014) interpretation of experiential pedagogies to include constructivism as an integral part of socioecological education, as it explicitly speaks to the dialectic nature of the learning process as well as the culturally situated nature of learning. For the purposes of this study, attributes of experiential pedagogies included:

1. Active reflection by participants on what they experience throughout learning activities. This may include individual reflection exercises such as journaling, as well as interpersonal reflection such as group discussions.
2. Exploration of the relevance of learning to other aspects of participants' lives. Participants must be encouraged to examine how what they learn relates to past experiences, and how what they learn may be applied to future situations in their lives.
3. Recognition of the ways in which immediate social interactions between and among teachers and participants influence learning. Participants must examine how dialectic processes of engagement and reflection within the learning community influences individual and collective learning.
4. Active recognition and exploration of the social context of learning. Participants must examine how the learning experience is influenced by and embodies social norms and ideals, as well as how the learning experience may be used to inform and influence social norms and ideals.

Lived experience. Wattchow, et al. (2014) declare that a central purpose of socioecological education is "to educate the whole person where the ultimate aim is to provide a rich and fulfilling encounter with learning" (p. v). Recognizing participants as whole people is critical to meaningful learning, as it acknowledges the entirety of what each individual brings to the learning experience. Therefore, the personal, familial, cultural, social, and economic realities experienced by participants are recognized and embraced by peers and teachers, allowing the individual to have an authentic learning experience. For the purposes of this study, attributes of lived experience included:

1. Active acknowledgement and consideration of the past life experiences participants have had leading up to the present learning experience.
2. Participants are encouraged to explore the influence and impact of their past life experiences on the present learning experience, particularly related to their familial, cultural, social, and economic realities.
3. Participants are encouraged to contextualize their learning in potential future life experiences, in order to personalize what they are learning to the broader familial, cultural, social, and economic realities.
4. Active acknowledgement of the uniqueness of each participant's life experience, as well as the multiplicity of life experiences that exist within a given learning community. Particular attention is paid to the social dynamics that contextualize the group's individual and collective life experiences, as well as how those dynamics are constructed and situated in the broader society.

Conclusion

As discussed throughout this chapter, the literature offers a number of critiques of the predominant aims, outcomes, and underlying curricular and pedagogical assumptions of OE. Socioecological education offers remedies to the needs identified in the literature, maintaining a focus on central tenets of place-based curriculum, experiential pedagogies, social justice, agency and participation, and lived experience. The following chapter will outline the research methods being utilized in order to statistically describe the extent of post-secondary Outdoor Education faculty's perceived knowledge, espoused beliefs, reported priorities, and reported practice related to socioecological education. The following chapter

will further operationalize the tenets of socioecological education and describe the methods by which this research was undertaken.

Chapter 3

Methodology

Introduction

As discussed in Chapter 1, this study sought to illuminate the extent to extent of post-secondary Outdoor Education faculty's perceived knowledge, espoused beliefs, reported priorities, and reported practice related to socioecological education. Socioecological education offers an integrated theoretical perspective that blends the long-standing key aims of OE—physical skills development, individual psychosocial development, interpersonal skills development, and environmental awareness (Neill, 2008; and Neill & Richards, 1998), with evolving aims of social and ecological justice, and place-based education (Wattchow & Brown, 2011; and Wattchow, et al., 2014). To date, there is little research indicating how widely adopted socioecological practice has become in OE, or the extent to which it is being enacted. Therefore, this study sought to identify the extent to which socioecological education is understood, valued, and practiced by OE faculty in the United States, and ultimately seeks to inform future development of socioecological practice in OE.

The theoretical constructs investigated were drawn from Wattchow, et al.'s (2014) model of socioecological education, with the added key construct of social justice (North, 2006; and Young, 2011). Chapter 2, discussed the theoretical grounding for the specific constructs of socioecological education explored, which include: 1) *Place-based*, 2) *Experiential Pedagogies, 3) Social Justice*, 4) *Agency and Participation*, and 5) *Lived Experience.* The following sections outline the design of this study, respondent population, instrumentation, and data collection and analysis procedures.

Design

As identified in Chapter 1, this study sought to answer the following primary research questions:

3. What is the extent of post-secondary Outdoor Education faculty's espoused knowledge, beliefs, and values about Outdoor Education in relation to the underlying principles of Socioecological Education?
4. What is the relationship between post-secondary Outdoor Education faculty's espoused knowledge, beliefs, and values about the principles of Socioecological Education and their reported pedagogical application of those principles?

The relationship between teacher beliefs and practice in education has been heavily researched and a thorough examination of these constructs is beyond the scope of this study. However, it is necessary to describe some predominant ways beliefs and practice have been shown to correlate in teacher practice. A meta-analysis by Basturkmen (2012) revealed that two predominant factors exist influencing the relationship between teacher beliefs and practice. First, context—the broader beliefs within the institution, and constraints—related to time, resources, and training had significant influence on whether or not teachers effectively translated their espoused beliefs into practice. Second, length of teaching experience showed a strong correlation between beliefs and practice, with more experienced teachers effectively translating their espoused beliefs into practice. Reasons cited include more experienced teachers having increased experiential contact with the theories that inform their practice versus newer teachers who have less practical experience and rely predominantly on academic contact with the theories. Likewise, experienced teachers are more likely to be able to articulate their beliefs and identify how they correlate to their practice.

Additionally, Lebak (2015) identifies that the literature lacks a general research consensus as to the correlational consistency between teachers' espoused beliefs and application of those beliefs in practice. However, for the sake of this study, Hill (2010) offers insight in a similar setting, having specifically researched the consistencies and conflicts of educator beliefs and practice in Outdoor Education. In particular, the study used a critical socioecological perspective, which recognizes that teacher practice is comprised of more than merely one's academic training. Instead, teaching is a practice embodying one's sense of place, lived experience, sensibilities about social and environmental issues, academic training, and the normative aims of OE. Hill's qualitative study revealed that influential relationships between espoused beliefs and practice are most related to 1) tensions between values and practice, 2) resource constraints, and 3) assessment and curriculum pressures. This study was most concerned with the first finding, particularly as it pertains to the correlation between the normative aims of OE and socioecological approaches to OE. Furthermore, this study made connections between prior knowledge and experience with a given theoretical perspective and its application.

To investigate the extent to which faculty incorporate socioecological education into their practice, this study employed a quantitative exploratory survey design for investigation. Exploratory inquiry allowed for the explanation of the current state of faculty's perceived knowledge, espoused beliefs, reported values, and reported practice as they pertain to socioecological education in OE. Furthermore, descriptive analyses identified correlations between beliefs, values, knowledge, and practice that helped clarify where beliefs, values, and practices are aligned and where educators can work to more effectively align them. To gather data, this study used survey instrumentation because of its ability to efficiently and

succinctly gather data from a sample population, in order to draw statistical inferences about a broader population (Creswell, 2013). Survey research is also a valuable tool for gathering self-reported information, such as beliefs and practice, which were the focal point of this study. Gall, Gall, and Borg (2003) add that survey instrumentation is particularly useful and effective for descriptive research, as it can illuminate a range of dynamics regarding a phenomenon. And while rich case studies exist, which account for the use and impacts of socioecological education in OE (Cheeseman, 2015; Stewart, 2004a, 2004b; and Wattchow, et al., 2014), present literature does not indicate the extent to which socioecological approaches are being employed by practitioners on any broad scale. Therefore, this survey served as a preliminary step quantifying the application of socioecological approaches by OE faculty who teach in post-secondary degree-granting OE programs.

Population and Sampling

The population surveyed for this study included faculty who teach Outdoor Education in colleges and universities throughout the United States. Specifically, the study targeted faculty who teach at least half time in accredited programs offering four-year undergraduate degrees in Outdoor Education and/or Adventure Education. Faculty were selected as research subjects as a subset of professionals who work in outdoor education for this study for a three primary reasons. First, using a narrowly identified group provided a starting point with relatively few confounding variables for exploring the extent of post-secondary Outdoor Education faculty's perceived knowledge, espoused beliefs, reported priorities, and reported practice related to socioecological education. Second, faculty are academically degreed and are most likely to have had formal contact with the theories and methods of OE. Third, faculty have direct and influential contact with pre-service outdoor educators. If

socioecological education represents a potential paradigm shift in OE as discussed in Chapter 2, it is useful to know whether or not faculty are actively practicing it in programs serving pre-service outdoor educators.

The number of programs nationwide offering undergraduate degrees in OE/AE are fairly limited in comparison to traditional academic disciplines in the arts, humanities, and sciences. However, the field is well established, with approximately 30 4-year undergraduate programs nationwide, and a number of programs offering 2-year degrees, and Master's and Doctoral level degrees (aee.org, aore.org, bigfuture.collegeboard.org, colleges.startclass.org). Within the four-year degree programs where respondents were surveyed, 113 qualifying faculty were identified. Potential respondents met the criteria of maintaining a minimum half-time faculty appointment regardless of rank or title in an accredited post-secondary Outdoor Education or Adventure Education program in the United States offering a four-year undergraduate degree. Due to the small population of faculty who teach OE and AE in four-year degree granting institutions, the survey potentially reached the entire population of respondents who met the criteria.

Respondents were identified through the following process. First, institutions in the United States offering a four-year undergraduate degree in OE or AE were identified using a combination of outreach to professional affiliations, internet searches, and networking through colleagues in the field. Once institutions were identified, surveys were administered electronically to faculty, using Qualtrics, an online survey database. A paper survey was made available from the researcher via mail upon request by respondents.

Faculty were specifically surveyed because much of the current literature about socioecological education indicates it is most often practiced in higher education institutions

(Wattchow, et al., 2014). Likewise, the population was chosen because higher education faculty are a practitioner group that is more likely to have had prior exposure to the theory and principles of socioecological education, and thus more likely to have actively chosen whether or not to employ it.

Instrumentation

This study utilized a descriptive quantitative survey method. The survey instrument addressed information regarding OE faculty knowledge of and beliefs about the fundamental aims and principles of OE. The survey gathered data regarding post-secondary Outdoor Education faculty's perceived knowledge, espoused beliefs, reported priorities, and reported practice related to socioecological education, as well as demographic information**.** Instrumentation for this study consisted of a self-administered electronic survey, with 43 items. The instrument examined faculty's perceived knowledge, espoused beliefs, and reported priorities and practice related to socioecological education. The survey for this study was divided into five sections. Each section is summarized below with guiding research sub-questions where applicable.

Section 1 measured faculty demographics. Demographic information included social demographics such as race and gender identity, as well as professional demographics such as education level and years of teaching experience in OE. Although not used in final analysis, demographic information was gathered in case it would assist in describing the respondent group in more detail. Also, as discussed above, both Basturkmen (2012) and Hill (2010) cite that professional experience and acculturation in a given academic field influence the correlation between beliefs and practice in education. Social demographic information was gathered for possible determination of possible correlations between demographic groups and

perceived knowledge, espoused beliefs, reported priorities, and reported practice of socioecological education.

Question 1. What is the current level of perceived knowledge of post-secondary outdoor education faculty regarding socioecological education?

Section 2 measured the faculty's perceived level of knowledge of the constructs of socioecological education and their purpose in outdoor education. Items utilized a six point Likert scale 1 (*I have no knowledge of this concept* to *I consider myself an expert in this concept*). Each item contained a definition of one key construct of socioecological education, and asked respondents to identify their perceived level of knowledge of it. These data were analyzed to determine mean scores, as well as whether or not there were significant correlations between knowledge, beliefs, priorities, and practice.

Question 2. To what extent do faculty believe the predominant aims and purposes and principles of socioecological education are important in Outdoor Education?

Survey section 3 measured OE faculty's beliefs about the importance of the predominant aims of OE and the principles of socioecological education in OE. Items employed a six point Likert scale (*strongly disagree* to *strongly agree*) to measure the level of importance faculty place on predominant aims of OE (personal growth and development, social skills development, physical skills development, and environmental awareness) and socioecological principles (place based, experiential pedagogies, agency and participation, social justice, and lived experience) in OE. Each item contained a statement that represented one or more predominant aims of OE or the underlying principles of socioecological education, in order to examine the extent to which respondents believe these aims should in fact be targeted in OE.

Question 3. To what extent do faculty in pre-service outdoor education programs prioritize the predominant curricular aims and purposes of Outdoor Education in relation to the social justice principle of socioecological education?

Section 4 measured the extent to which faculty in pre-service Outdoor Education programs prioritize the predominant curricular aims and purposes of Outdoor Education in relation to curricular aims of social justice. Items utilized forced choice ranking, in order to identify where faculty place social justice amidst the predominant curricular aims (personal growth and development, social skills development, physical skills development, and environmental awareness) of OE. Each item included a cluster of five curricular aims—one from each predominant aim and one social justice aim. Participant responses in this section provided data to compare with espoused beliefs, reported practice, and perceived knowledge, in order to see how values and priorities may or may not correlate significantly to those constructs.

The reason for specifically measuring social justice in this examination rather than other principles of socioecological education was that the foundation of this study was premised on the need for increased attention to social justice in OE. Furthermore, many of the predominant curricular aims of OE are embodied in socioecological practice, and are thus embedded in these items. Therefore, it would have been difficult to discreetly extract one from the other for comparison. Furthermore, much of the socioecological education model utilized for this study focuses on pedagogy. This section of the survey specifically examined curricular aims, while the following section focused on pedagogy and practice.

Question 4. To what extent do faculty report applying socioecological education in their pedagogy in post-secondary outdoor education?

Section 5 measured the extent to which faculty report applying socioecological education pedagogy in post-secondary outdoor education. Items employed a six point Likert scale (*almost never* to *almost always*) to measure the extent to which faculty report employing socioecological education pedagogy in their practice. Each item represented a pedagogical practice associated with one of the five constructs of socioecological education as defined in this study (Place-Based, Experiential Pedagogies, Agency and Participation, Lived Experience, and Social Justice). Data gathered from Section 3 were analyzed to describe the extent to which socioecological education is reportedly pedagogically engaged. Furthermore, these data were compared to espoused beliefs, reported priority, and perceived knowledge, in order to determine possible correlations among them.

Data Collection

The survey instrument was administered using Qualtrics, an online survey database. Respondents were identified using a combination of outreach efforts. First, an internet search of higher education institutions offering degrees in OE and AE was conducted. Second, personal and professional connections in the field were utilized, in order to identify as many appropriate programs and possible respondents. Third, an exhaustive program list of post-secondary OE programs was provided by a colleague in the field that included many institutions not initially located through other means.

Surveys were sent to individual faculty who potentially fit the criteria described above. They were asked to opt out from responding if they did not fit the criteria. Department Heads and Program Coordinators of identified programs were also asked to distribute survey links to people who may not have been readily identifiable on program websites.

Respondents were given four weeks to complete the survey, with reminders sent at week 2 and week 3. Data were gathered anonymously, as names were not collected. Data were stored in the Qualtrics database and were downloaded onto the primary investigator's computer in encrypted form for data analysis. All downloaded data sets were password protected.

Data Analysis

Data analysis included a series of descriptive and correlational statistical analyses to identify possible correlations between faculty perceived knowledge, espoused beliefs, reported priorities, and reported practice. First, mean scores were determined for individual items, providing nominal data regarding faculty's perceived knowledge, espoused beliefs, reported priorities, and reported practice related to OE and socioecological education. These data provided summative item-level data regarding the identified constructs.

In order to examine correlations between faculty's perceived knowledge, espoused beliefs, and pedagogical application of socioecological principles, a series of Pearson's r correlation coefficients were conducted to answer the following sub-questions:

Question 5. What is the extent of the correlation between post-secondary Outdoor Education faculty's perceived knowledge and espoused beliefs about the principles of socioecological education and their pedagogical application of those principles?

Question 6. What is the extent of the correlation between post-secondary Outdoor Education faculty's prioritization of curricular aims of social justice and their pedagogical application of social justice pedagogy?

Specifically, relationships between perceived knowledge and espoused beliefs, perceived knowledge and reported practice, espoused beliefs and reported practice, and

reported priority of social justice aims and reported practice were measured. Findings are described in Chapter 4 and interpreted in Chapter 5 to determine possible implications for the field of OE.

Chapter 4

Findings

The purpose of this exploratory survey research study was to answer two primary research questions:

1. What is the extent of post-secondary Outdoor Education faculty's espoused knowledge, beliefs, and values about Outdoor Education in relation to the underlying principles of Socioecological Education?
2. What is the relationship between post-secondary Outdoor Education faculty's espoused knowledge, beliefs, and values about the principles of Socioecological Education and their reported pedagogical application of those principles?

A survey was delivered electronically to 113 potential respondents; 67 responses (59.29%) were submitted. Of these responses, 9 were determined invalid, therefore 58 responses were included in data analysis. Responses reported for some questions is lower than $N = 58$, due to all survey questions being optional, and $N = 54$ or higher in all data analysis.

Reliability

Internal consistency reliability. Internal consistency reliability of the survey instrument was tested using Pearson's-r correlation coefficient. Constructs tested included Likert items related to faculty's knowledge, belief, and practice. Tests indicated strong construct reliability for *Knowledge,* α was $r(8) = .80$, $p<.05$; *Belief* , α was $r(8) = .92$, $p<.01$; and *Practice,* α was $r(8) = .77$, $p<.05$ Therefore, correlations using these constructs will be analyzed using summative data from each construct.

Test-retest reliability. Test-retest reliability was determined using Pearson's-r correlation coefficient. The survey was field tested with a group of seven graduate students

and one faculty member in a Masters of Environmental Education program at the University of Minnesota Duluth. Respondents took the survey two times, with responses approximately one week apart. Survey questions from three Likert item sections were compared to determine consistency in responses by respondents between the two surveys. Data show strong test-retest reliability for *Knowledge,* α was $r(8) = .73$, $p<.05$; *Belief,* α was $r(8) = .94$, $p<.01$; and *Practice,* α was $r(8) = .77$, $p<.05$.

Validity

Content validity of the measures was evaluated and established by the content expert, who served as committee members for this study. Face validity of the measures was evaluated and established by eight Masters of Environmental Education students and one faculty member, who field tested the instrument.

Results

Five sub-questions were examined using descriptive statistics including means and standard deviations. The means provided the central tendency for each area studied, while the standard deviations offered available definitions to explain potential variations for each distribution. The data were analyzed using Pearson's-r correlation coefficient to determine the direction and strength of relationships between examined constructs. The following sections will describe the data as directly related to the six research sub-questions.

Question 1. What is the current level of perceived knowledge of post-secondary outdoor education faculty regarding socioecological education?

As described in Chapter 1, this study defined *knowledge* as "the memory and grasp of meaning of a particular concept or set of concepts. Knowledge is a construct of understanding, which precedes application of a particular concept." (Anderson, et al., 2009).

In particular, this study examined faculty's perceived conceptual knowledge of the key principles of socioecological education (place based, experiential pedagogies, agency and participation, lived experience, and social justice). Each item contained a conceptual definition of one key principle of socioecological education. Respondents indicated their perceived knowledge of each key principle's definition using a six point Likert scale (*1 – I have no knowledge of this concept, 2 – I am mostly unfamiliar with this concept, 3 – I am somewhat familiar with this concept, 4 – I am very familiar with this concept, 5 – I have a strong working knowledge of this concept, 6 – I consider myself an expert in this concept*). Table 1 shows the mean scores (*M*) and standard deviation (*SD*) across all items related to faculty's perceived knowledge of socioecological education principles. As illustrated in Table 1, the summative mean (with SD in parentheses) for *knowledge* was 4.58 (0.72). Means for each socioecological principle (place based, experiential pedagogies, agency and participation, lived experience, and social justice) were 4.57 (0.86), 5.16 (.85), 4.40 (1.11), 4.55(0.96), 4.24 (1.00), respectively.

Table 1

Faculty Perceived Knowledge of Socioecological Education Principles

	Social Justice	Experiential Pedagogies	Lived Experience	Place-Based	Agency & Participation	Average Summative Knowledge
N	58	58	58	58	58	58
Mean	4.24	5.16	4.55	4.57	4.40	4.58
Std. Deviation	1.00	0.85	0.96	0.86	1.11	0.72
% of responses indicating a perceived strong working knowledge or expertise in each concept.	43.10	81.10	60.40	56.90	58.60	60.02

Since this study was concerned with correlations between knowledge, belief, values, and practice, it was useful to parse out responses which represent a perceived level of applied knowledge. Responses of 5 (*I have a strong working knowledge of this concept*) or 6 (*I*

consider myself an expert in this concept) may suggest a stronger correlation to practice because as Anderson, et al. (2009) explain, knowledge precedes application and a greater extent of knowledge may lead to more ready application of that knowledge. As illustrated in Table 1, the percentage of faculty's responses at the high end of the Likert scale were 43.1% (social justice), 81.1% (experiential pedagogies), 60.4% (lived experience), 56.9% (place-based), and 58.6% (agency and participation).

Question 2. To what extent do faculty believe the predominant aims and purposes and principles of socioecological education are important in Outdoor Education?

As described in Chapter 1, this study defines *belief* as "a proposition which may be consciously or unconsciously held, is evaluative in that it is accepted as true by the individual, and is therefore imbued with emotive commitment; further, it serves as a guide to thought and behavior" (Borg, 2001, p. 186). In particular, this study examined faculty's espoused beliefs about the importance of curricular aims of OE, including predominant aims of OE (personal growth and development, social skills development, physical skills development, and environmental awareness) as well as socioecological curricular aims (place based, experiential pedagogies, agency and participation, social justice, and lived experience) as applied in OE. Each item examining espoused beliefs consisted of a statement representing one or more predominant aims or underlying aims of socioecological education. Respondents indicated their espoused beliefs about each stated curricular aim using a six point Likert scale (*1 - strongly disagree, 2 – disagree, 3 – somewhat disagree, 4 – somewhat agree, 5 – agree, 6 – strongly agree*). Table 2 shows the *M* and *SD* for faculty's espoused beliefs about the predominant curricular aims and socioecological curricular aims of OE, as

well as summative means of each group of curricular beliefs (predominant and socioecological).

Table 2

Espoused Beliefs in Predominant and Socioecological Aims of Outdoor Education

Stated Curricular Outcome	N	Mean	Std. Deviation
Students gaining a greater knowledge of self is essential to outdoor education. (PG)	58	5.53	0.80
Students learning to navigate personal challenges is essential to outdoor education. (PG)	58	5.36	0.83
Promoting improved communication skills with others is essential to outdoor education. (SS)	58	5.41	0.88
Promoting group cohesion and cooperation with others is essential to outdoor education. (SS)	58	5.40	0.88
Students learning technical physical skills is essential to outdoor education. (PS)	58	4.79	1.01
Students challenging themselves physically is essential to outdoor education. (PS)	58	4.62	1.09
Students increasing their environmental awareness is essential to outdoor education. (EA)	58	5.40	0.79
Students developing pro-environmental behaviors is essential to outdoor education. (EA)	58	4.95	1.02
Summative Predominant Aims	**58**	**5.18**	**0.91**
Students increasing knowledge of natural and human histories of local landscapes is essential to outdoor education. (PB)	58	5.09	0.92
Students increasing knowledge of human impacts on local ecological landscapes is essential to outdoor education. (PB)	58	5.22	0.99
Students developing personal connections to local landscapes is essential to outdoor education. (PB)	58	5.28	0.93
Allowing students to determine the extent to which they participate in program activities is essential to outdoor education. (AP)	58	4.91	0.88
Providing students opportunities to contribute to course content and goals is essential to outdoor education. (AP)	58	4.78	0.73
Having students reflect on how their previous life experiences influence their present learning is essential to outdoor education. (LE)	58	5.19	0.96
Developing physically and culturally inclusive learning environments for all students is essential to outdoor education. (SJ)	58	5.38	0.77
Addressing social dynamics of privilege and disadvantage is essential to outdoor education. (SJ)	58	4.81	1.00
Promoting social equity is essential to outdoor education. (SJ)	58	5.21	0.93
Recognizing the connections between social justice and ecological justice is essential to outdoor education. (SJ)	58	4.79	0.97
Summative Socioecological Aims	**58**	**5.07**	**0.51**
Summative Predominant and Socioecological Aims	**58**	**5.12**	**0.89**

Note. PG = Personal Growth; SS = Social Skills; PS = Physical Skills; EA = Environmental Awareness; SJ = Social Justice

Note. Items in bold represent summative data for predominant an/or socioecological curricular aims.

The summative *M* for *belief* was 5.12 (0.89) indicating faculty collectively espouse a belief that both the predominant curricular aims as well as the applied curricular principles of socioecological education are important. A positive espoused belief of these curricular aims may be unsurprising. First, faculty who teach OE in higher education have likely come to know the purported benefits of the predominant aims whether through formal educator preparation, or through applied experience in the field. Second, although socioecological education is an integrated model, the discreet principles themselves (experiential pedagogies, place-based, agency and participation, lived experience, and social justice) predate socioecological modeling. Therefore faculty have likely had prior interaction with these principles and may understand their importance in OE.

Separating out predominant and socioecological aims, the data indicate a marginal difference between the two, with predominant aims producing a summative mean of 5.18 (0.91) and socioecological aims producing a summative mean of 5.07 (0.51). These data show there is nominal difference in faculty's espoused beliefs in predominant aims of OE over the socioecological aims of OE. Although not statistically significant, the difference seen between these data points suggest faculty still hold the predominant curricular aims of OE as slightly higher in importance than the socioecological aims. Overall, faculty reported the priority of these aims, specifically related to social justice, which will be discussed later in the subsequent section of this chapter.

Meaningful but not statistically significant data points relate to physical skills development, social skills development, and environmental awareness. First, means of *students learning technical physical skills is essential to outdoor education* and *students challenging themselves physically is essential to outdoor education,* with mean scores of 4.79

(1.01) and 4.62 (1.09), respectively are relatively low. Contrarily, *promoting improved communication skills with others is essential to outdoor education* and *promoting group cohesion* and *cooperation with others is essential to outdoor education* were among the highest rated outcomes, yielding mean scores (with standard deviation in parentheses) of 5.41 (0.88) and 5.40 (0.88), respectively. Data show that faculty espouse a belief that social skills development is among the most essential curricular aims of OE, while physical skills development is of slightly less importance. Similarly, there was a variance in extent of espoused belief regarding environmental awareness, with *increasing awareness* scoring higher than *developing pro-environmental behaviors,* 5.4 (0.79) and 4.95 (1.02), respectively. The difference between these two data points suggest that faculty believe that increasing students' awareness about issues related to the environment is more important than influencing students' pro-environmental behaviors.

Question 3. To what extent do faculty in pre-service outdoor education programs prioritize the predominant curricular aims and purposes of Outdoor Education in relation to the social justice principle of socioecological education?

As described in Chapter 1, this study defines priority as an extension of belief, through which individuals demonstrate value preferences about concepts, ideas, and/or practices. (Pajares, 1992). In particular, this study was interested in finding out how faculty prioritize curricular aims of social justice (a construct of socioecological education as defined by this study) in comparison to the predominant aims and purposes of OE (personal growth and development, social skills development, physical skills development, and environmental awareness). Respondents were asked to rank in clusters of curricular aims in order of importance from 1-5, with 1 being *most important*. Data show faculty consistently prioritize

the identified predominant curricular aims of OE over identified social justice curricular aims of OE (see Table 3) with the exception of *physical skills development,* which was ranked as the least important curricular aim in all but one cluster. The lower ranking of physical skills development suggests faculty may be departing from the traditional emphasis on physical skills development, or perhaps rank it lower as a matter of sequence rather than assigned value. Likewise, data show social justice is a relatively lower priority for most faculty, as low as 4th of 5.

Table 3

Faculty Priority of Social Justice and Predominant Aims of Outdoor Education

	N	M	SD	Rank
Increase their self-awareness (PG)	57	1.44	0.98	1
Build trust with others (SS)	57	2.46	1.02	2
Improve personal health and fitness (PS)	57	3.72	1.07	5
Gain knowledge of plants and animals (EA)	57	3.68	1.34	3
Increase awareness of cultural biases (SJ)	57	3.70	0.98	4
Increase self-confidence (PG)	57	2.18	1.35	1
Work effectively with others to solve problems (SS)	57	2.26	0.99	2
Develop lifelong hobbies (PS)	57	4.12	1.42	5
Develop a sense of stewardship for the environment (EA)	57	2.63	1.11	3
Increase awareness of social dynamics of privilege and disadvantage (SJ)	57	3.81	0.90	4
Reflect on the personal meaning of what they are learning (PG)	56	1.59	0.99	1
Learn to work cooperatively with others (SS)	56	2.23	0.97	2
Reflect on what they experience physically during activities (PS)	56	4.21	0.95	5
Develop of pro-environmental values (EA)	56	3.09	1.08	3
Develop intercultural competence (SJ)	56	3.88	1.13	4
Reflect on how new knowledge and insights may be applied to future life situations (PG)	56	1.68	0.99	1
Develop empathy toward others (SS)	56	2.05	0.94	2
Increase physical abilities (PS)	56	4.52	0.85	5
Develop an understanding of human impacts on local ecosystems (EA)	56	3.02	0.96	3
Gain exposure to diverse cultural perspectives (SJ)	56	3.73	1.04	4
Increase their self-awareness (PG)	56	1.55	1.08	1
Work effectively with others to solve problems (SS)	56	2.20	0.80	2
Reflect on what they experience physically during activities (PS)	56	4.30	0.95	5
Develop an understanding of human impact on local ecosystems (EA)	56	3.05	1.05	3
Increase awareness of dynamics of privilege and disadvantage (SJ)	56	3.89	1.02	4
Reflect on the personal meaning of what they are learning (PG)	55	1.91	1.11	1
Develop empathy toward others (SS)	55	2.25	0.97	2
Develop lifelong hobbies (PS)	55	4.27	1.31	5
Form a personal connection to the environment (EA)	55	2.76	1.11	3
Increase awareness of cultural biases and assumptions (SJ)	55	3.80	0.97	4
Increase self-confidence (PG)	55	1.85	1.27	1
Learn to work cooperatively with others (SS)	55	1.95	0.76	2
Improve personal health and fitness (PS)	55	4.33	0.92	5
Develop pro-environmental values (EA)	55	3.29	1.15	3
Gain exposure to diverse cultural perspectives (SJ)	55	3.58	1.07	4
Reflect on how new knowledge and insights may be applied to future life situations (PG)	54	1.35	0.76	1
Build trust with others (SS)	54	2.22	0.88	2
Increase physical abilities (PS)	54	4.44	0.88	5
Gain knowledge of plants and animals (EA)	54	3.59	0.96	4
Develop intercultural competence (SJ)	54	3.39	1.05	3

Note. PG = Personal Growth; SS = Social Skills; PS = Physical Skills; EA = Environmental Awareness; SJ = Social Justice.
Note. Alternate shading indicates priority clusters as they appeared in the survey.

Question 4. To what extent do faculty report applying socioecological education in their pedagogy in post-secondary outdoor education?

As described in Chapter 1, this study defines "practice" as the application of pedagogical principles in the teaching and learning setting. In particular, this study was

focused on determining the extent to which faculty practice socioecological education in their teaching. Each item examining practice consisted of a discreet action or method, which faculty might initiate in the teaching and learning setting. Respondents indicated the frequency with which they practice each action using a six point Likert scale (*1 –almost never, 2 – very infrequently, 3 – infrequently, 4 – frequently, 5 – very frequently, 6 – almost always*). Table 4 shows the mean (with standard deviation in parentheses) of faculty's reported pedagogical application of socioecological education principles in their practice. The overall summative mean for reported practice of all socioecological principles was 4.75 (0.96), with means for individual socioecological constructs of place-based, experiential pedagogies, agency and participation, lived experience, and social justice producing summative mean scores of 4.55 (0.95), 5.22 (0.91), 5.09 (0.89), 4.88 (0.82), and 4.04 (1.31), respectively. Data show that overall, faculty collectively report applying pedagogical principles of socioecological education in practice frequently to very frequently, with experiential pedagogies occurring most frequently and social justice occurring least frequently.

Table 4

Faculty Reported Practice of Socioecological Education in Outdoor Education

	N	Mean	Std. Deviation
I utilize personal narratives, such as journals or stories, to describe people's interactions with local landscapes. (PB)	54	4.37	1.02
I incorporate a variety of cultural perspectives when exploring local landscapes. (PB)	54	3.94	1.00
I provide opportunities for students to have direct contact with local landscapes. (PB)	54	5.33	0.82
Summative Average - Place Based	**54**	**4.55**	**0.95**
I utilize reflective exercises, such as journals and group discussions, to help students gain meaning from what they are learning. (EP)	54	5.61	0.74
I utilize reflective exercises, such as journals and group discussions, to help students transfer new skills and knowledge to future life situations. (EP)	54	5.54	0.79
I utilize physical challenge to foster personal growth and development. (EP)	54	4.50	1.02
Summative Average - Experiential Pedagogies	**54**	**5.22**	**0.91**
Before the learning event, I fully inform students about program goals, outcomes, and activities. (AP)	54	5.07	0.91
I allow students to determine the extent to which they participate in program activities. (AP)	54	4.78	1.00
I seek feedback from students regarding program content, outcomes, and assessment. (AP)	54	5.41	0.77
Summative Average - Agency & Participation	**54**	**5.09**	**0.89**
I encourage students to share personal stories and narratives about their lives. (LE)	54	5.46	0.69
I guide exploration of how students' prior life experiences contribute to their present learning. (LE)	54	4.59	0.94
I guide exploration of how students' prior skills and knowledge contribute to the present learning experience. (LE)	54	4.59	0.84
Summative Average - Lived Experience	**54**	**4.88**	**0.82**
I identify dynamics of cultural privileges and disadvantages present in the learning environment. (SJ)	54	3.72	1.27
I ensure activities are accessible to all people regardless of physical ability. (SJ)	54	4.63	1.20
I actively enlist participation of people from historically marginalized groups. (SJ)	54	3.76	1.45
Summative Average - Social Justice	**54**	**4.04**	**1.31**
Summative Average - All Socioecological Principles	**54**	**4.75**	**0.96**

Note. PB = Place-Based; EP = Experiential Pedagogies; AP = Agency and Participation; LE = Lived Experience; SJ = Social Justice.

Note. Items in bold represent summative data for each socioecological principle.

Notably, the three items which data show faculty reported practice between infrequently and frequently were *I incorporate a variety of cultural perspectives when exploring local landscapes, I identify dynamics of cultural privileges and disadvantages present in the learning environment*, and *I actively enlist participation of people from historically marginalized groups,* with means of 3.94 (1.00), 3.72 (1.27), and 3.76 (1.35), respectively. While these three practices are from two different socioecological principles, they all involve cultural identities, dynamics, and perspectives.

Question 5. What is the extent of the correlation between post-secondary Outdoor Education faculty's perceived knowledge and espoused beliefs about the principles of socioecological education and their pedagogical application of those principles?

In order to examine correlations between faculty's perceived knowledge, espoused beliefs, and pedagogical application of socioecological principles, a series of Pearson's r correlation coefficients were conducted. Correlations between perceived knowledge and reported practice, espoused beliefs and reported practice, and perceived knowledge and espoused beliefs were tested (See Table 5). Data show a significant correlation between variables of perceived knowledge and reported practice, $r(54) = .532$, $p < .01$. Data also show positive but not statistically significant correlations between espoused belief and reported practice, $r(54) = .248$, $p > .01$; and perceived knowledge and espoused belief, $r(58) = .179$, $p > .01$. Notably, Pearson correlation rather than Spearman correlation was used for this correlation matrix because priority was measured on an ordinal scale and the other two variables (knowledge and beliefs) were measured on an interval scale. Based on these correlations, it can be inferred that the more faculty know about socioecological education, the more they will implement its principles in their practice.

Table 5

Correlations Between Percieved Knowledge, Espoused Beliefs, and Reported Practice of Socioecological Edcuation

		Percieved Knowledge	Espoused Beliefs	Reported Practice
Percieved Knowledge	Pearson Correlation	1	0.179	.532**
	Sig. (2-tailed)		0.179	0
	N	58	58	54
Espoused Beliefs	Pearson Correlation	0.179	1	0.248
	Sig. (2-tailed)	0.179		0.07
	N	58	58	54
Reported Practice	Pearson Correlation	.532**	0.248	1
	Sig. (2-tailed)	0	0.07	
	N	54	54	54

*** Correlation is significant at the 0.01 level (2-tailed).*

Question 6. What is the extent of the correlation between post-secondary Outdoor Education faculty's prioritization of curricular aims of social justice and their pedagogical application of social justice pedagogy?

In order to determine the correlation between faculty's reported curricular priorities of social justice and their reported pedagogical application of social justice, a Pearson's *r* correlational coefficient was run using the summative means of rank order scores for four social justice curricular aims and three pedagogical practices measured in the survey (see Table 4). When interpreting these data, it is necessary to note the reverse scale of priority (1-5 ranking highest to lowest) and practice (1-6 rating least frequent to most frequent). Therefore, the negative correlation coefficients in Table 6 should be interpreted as positive relationships between variables. Notably, there is an overall positive and statistically significant relationship between reported priority and reported practice of social justice, $r(54) = -.378$, $p < .01$. And although only certain combinations of priority and practice yielded statistically significant results, all data show positive relationships, suggesting there is a moderate to strong relationship between faculty's reported prioritization of social justice curricular outcomes and their reported pedagogical application of social justice in their

practice.

Table 6

Correlation between faculty's prioritized value of curricular outcomes and their reported pedagogical application of social justice in Outdoor Education

		I identify dynamics of cultural privileges nd disadvantages present in the learning environment.	I ensure activities are accessible to all people regardless of physical ability.	I actively enlist participation of people from historically marginalized groups.
Increase awareness of cultural biases and assumptions	Pearson Correlation	-0.251	-0.04	-0.21
	Sig. (2-tailed)	0.068	0.774	0.127
	N	54	54	54
Increase awareness of social dynamics of privilege and disadvantage	Pearson Correlation	-.318*	-0.033	-.324*
	Sig. (2-tailed)	0.019	0.812	0.017
	N	54	54	54
Develop intercultural competence	Pearson Correlation	-0.248	-0.207	-.401**
	Sig. (2-tailed)	0.071	0.134	0.003
	N	54	54	54
Gain exposure to diverse cultural perspectives	Pearson Correlation	-0.19	-.345*	-.307*
	Sig. (2-tailed)	0.17	0.011	0.024
	N	54	54	54

** Correlation is significant at the 0.05 level (2-tailed).*

*** Correlation is significant at the 0.01 level (2-tailed).*

Conclusion

Analysis of survey data provided meaningful answers to the research sub-questions as outlined and summarized in this chapter. The data show significant correlations between perceived knowledge and reported practice, as well as reported priority and reported practice of socioecological principles. Overall, data show perceived knowledge, espoused beliefs, and reported priority and practice related to social justice are lower by comparison to other socioecological principles, as well as to predominant aims of OE. The implications of these findings, as well as limitations of the study and suggestions for future research will be discussed in Chapter 5.

Chapter 5

Discussion

This exploratory survey research was conducted to examine the extent of and relationship between faculty's perceived knowledge, espoused beliefs, reported priorities, and reported practices related to socioecological education. Specifically, this study asked:

1. What is the extent of post-secondary Outdoor Education faculty's espoused knowledge, beliefs, and values about Outdoor Education in relation to the underlying principles of Socioecological Education?
2. What is the relationship between post-secondary Outdoor Education faculty's espoused knowledge, beliefs, and values about the principles of Socioecological Education and their reported pedagogical application of those principles?

Survey responses were gathered from faculty who teach in four-year degree granting post-secondary Outdoor Education programs. Chapter 4 summarized and described the data. Chapter 5 will discuss the meaning of the data in the context of the research questions, relating it back to the theoretical framework outlined in the Chapter 2. Additionally, limitations of the study and implications for theory development and future research, and implications for training and development will be discussed.

Significant Findings

Knowledge. Data show that faculty maintain an overall high level of perceived conceptual knowledge of the principles of socioecological education, with means of each socioecological principle (place based, experiential pedagogies, agency and participation, lived experience, and social justice) at the "very familiar" level or higher. Anderson, et, al. (2009) assert that knowledge precedes application, and a greater extent of knowledge may

lead to more ready application of that knowledge. It is useful to keep in context that knowledge was self-reported in this study. Therefore, the data do not provide an external or objective assessment of the participating faculty's knowledge. Iarossi (2006) suggests that in survey research, respondents are hesitant to portray their own lack of knowledge about a subject. Likewise, respondents were all faculty who teach in institutions of higher education and may have had prior contact with the concepts addressed. For these reasons, it is unsurprising that the overall extent of knowledge indicates a strong familiarity with individual socioecological principles. Additionally, it is important to note that the discrete principles represented in the socioecological model (experiential pedagogies, place-based, agency and participation, lived experience, and social justice) predate the model in other theoretical contexts, although not in the same integrated manner presented by Wattchow, et al. (2014) and in this study.

That said, as stated in Chapter 4, responses of 5 (*I have a strong working knowledge of this concept*) or 6 (*I consider myself an expert in this concept*) may serve as a stronger indicator of practice than responses merely indicating an extent of familiarity with each concept. As Anderson, et al. (2009) describe, when an individual possesses an applied level of knowledge about a topic, they are more likely to carry out that knowledge or use it in a given situation. In the context of the literature, percentages of a perceived applied level of knowledge or expertise in experiential pedagogies and social justice warrant the most attention here.

As discussed in Chapter 2, experiential learning is a key tenet of Outdoor Education. It seems logical that faculty teaching OE would have a solid conceptual knowledge of experiential pedagogies, as evidenced by 81.1% of respondents indicating a strong applied

knowledge or expertise in this area. However, it is necessary to keep in mind that theoretically, OE takes a broadly reductionist approach to experiential learning, focusing primarily on cognitive and behavioral phenomena and all but ignoring the sociocultural context of the learning environment (Oxendine, Robinson, & Willson, 2004; Quay & Seaman, 2016; and Wichmann, 1980). Therefore, it is unclear the extent to which respondents may default to reductionist ideas about experiential pedagogies, or whether their responses truly acknowledged the latter part of the definition provided in the survey:

> Experiential Pedagogies utilize personal and group reflection, to explore what students are learning. Students are compelled to transfer new skills, insights, and knowledge gained to other aspects of their lives. Experiential pedagogies acknowledge the existing skills, knowledge, and insights that students bring to the learning experience, as well as the ways in which culturally embedded norms and ideals contextualize and shape the learning environment.

In contrast to the high percentage of faculty reporting a perceived strong working knowledge or expertise in experiential pedagogies, data show that 43.1% of respondents reported a perceived level of strong working knowledge or expertise in social justice, which is defined in the survey as:

> a process of actively acknowledging, examining, and working to transform cultural dynamics of privilege and marginalization within and surrounding the learning environment. This includes interpersonal, institutional, structural, and systemic social power dynamics, as well as ways in which social dynamics impact ecological systems.

The relatively low level of applied knowledge of social justice is a critical point in light of the underlying purpose of this study, which is to address the broadly identified and persistent lack of attention to social justice in OE curriculum and pedagogy (Warren, et al., 2014). The data support the notion that more efforts need to be made to increase faculty understanding of social justice and its importance to OE (Frazer, 2009; Warren, 1998 2002, 2005; and Warren, et al., 2014). It is worth noting that although fewer than half of respondents reported a strong

working knowledge or expertise in social justice, an additional 32.8% of respondents reported being *very familiar* with the concept of social justice as defined in the survey. Therefore, faculty have some general familiarity with social justice, but may need to increase their working knowledge of social justice in order to more fully apply their knowledge in practice.

Beliefs. Data show faculty overwhelmingly espouse beliefs that the stated predominant curricular aims and outcomes, and socioecological aims and outcomes are essential to OE. There was a nominal difference in summative mean averages for predominant aims and outcomes—5.18 (0.91), and socioecological aims and outcomes—5.07 (0.51), suggesting one set of aims and outcomes is not viewed as significantly more important than the other, and may perhaps be more a matter of sequence of delivery or another phenomenon than assigned value. Again, Iarossi (2006) cautions that measurements of espoused belief may tend to indicate higher positive agreement with stated information in survey data. Additionally, Borg (2003) asserts that espoused beliefs are potentially very different from beliefs in practice. Therefore, the overwhelming agreement of faculty with the stated aims of OE do not necessarily reflect the priority they place on the aims or the extent to which they incorporate the aims into their practice. Finally, beliefs are difficult to objectively measure, therefore these data gain significance when correlated with knowledge, value, and practice.

The literature offers several critiques of OE's focus on physical skills and challenge as essential modes of experiential learning and transfer, and suggests a more relational focus be maintained (Berman, Davis-Berman, 2005; Mitten, 1985; Mitten, et al., 2012; and Warren, 1998, 2006). The lower mean scores in response to outcomes related to physical

skills development and personal challenge may indicate faculty agreement with the literature, believing that physical skills, while still viewed as important, are perhaps less essential in OE, while social skills development is believed to be of greater importance in the learning environment.

Additionally, as indicated in Chapter 4, faculty espoused a belief that raising environmental awareness is essential to OE, while promoting pro-environmental behaviors was seen as significantly less important. Orr (2003) and Sobel (2005) assert that a key reason for raising environmental awareness is to encourage greater engagement in environmental action and pro-environmental behaviors. It is difficult to say why faculty seem to diverge from this idea. One factor may be the desire of faculty to remain more or less neutral on advocacy issues, and since environmental issues are often politically contentious, perhaps faculty are attempting to equip students with environmental awareness but not necessarily to promote action.

Priority. Priority is defined in this study as an extension of belief through which individuals demonstrate value preferences about concepts, ideas, and/or practices. (Pajares, 1992). It is important to consider that the rank order data did not measure the extent of importance of each curricular outcome listed in the survey item clusters. Therefore, a ranking of 5 (1 being most important) does not necessarily mean the outcome is unimportant, but simply that it is less important than other outcomes in the cluster. That said, data show that faculty consistently prioritize the predominant aims of OE over social justice aims. Notably, this data point may indicate faculty see social justice as a lesser priority in terms of sequence of delivery, rather than assigned value. One exception to this trend is physical skills development, which faculty ranked lower than social justice in six out of eight priority

clusters measured. Again, these data points may speak to a shift away from the value preference of physical skills development in light of other social and environmental aims of OE.

Perhaps more important in light of the underlying purpose of this study, however, is the consistent lower ranking of social justice aims. As discussed above in relation to knowledge, the literature provides a broad and persistent critique that OE practitioners by and large do not place enough value on social justice (Warren, et al., 2014), and that until it is afforded a central focus, the field will continue to underserve certain historically marginalized groups (Mitten, et al., 2012; and Warren, 1998, 2005). However, as identified above, a low ranking of social justice does not necessarily mean faculty view it as unimportant, but rather they see it as less important than personal development, social skills development, and environmental awareness. Therefore, the correlation between priority and practice was examined.

Practice. Data show faculty consistently report applying socioecological principles in their pedagogical practice. It is important to consider that socioecological education is an integrated model, incorporating place-based principles, experiential pedagogies, lived experience, agency and participation, and social justice. While specific practical actions were measured in this study, the purpose was to isolate individual actions being taken which align with these principles, rather than to suggest a compartmentalized approach to socioecological education. One potentially significant trend emerged in the analysis related to the application of socioecological pedagogical practice examined in this study. The three items which data analyses show faculty reported practice between infrequently and frequently were *I incorporate a variety of cultural perspectives when exploring local*

landscapes, I identify dynamics of cultural privileges and disadvantages present in the learning environment, and *I actively enlist participation of people from historically marginalized groups.* While these three practices are derived from two different socioecological principles, they all involve cultural identities, dynamics, and perspectives. The relatively less frequent pedagogical application of these principles may speak to Warren, et al.'s (2014) state of knowledge review, which suggests that OE has progressed in its awareness and understanding of social justice, but still falls short of actively addressing cultural identity dynamics in the teaching and learning setting, as well as effectively working to remedy low levels of participation by historically marginalized groups in OE. Likewise, as Mitten, et al. (2012) discovered, OE perhaps inadvertently maintains a strong hidden curriculum that favors dominant culture values and ideals, and continues to alienate participants and practitioners from historically marginalized identity groups.

Correlations. Correlations were tested between perceived knowledge, espoused beliefs, and reported practice in order to determine statistical significance of these relationships. Although each pairing showed a positive correlation, the only statistically significant relationship was that of perceived knowledge and reported practice. It may be inferred from this data point that if faculty knowledge of socioecological education increased, there is a likelihood that socioecological practice may increase as well. It is worth noting that since all data were self-reported, it is difficult to determine whether this correlation is a result of faculty's self-perception of knowledge and practice, or if a correlation between their actual knowledge and practice might be somehow objectively observed. Basturkmen (2012) and Lebak (2015) identify a lack of general research consensus as to the correlational consistency between teachers' espoused beliefs and application of

those beliefs in practice, due to a number of contextual factors and high variability in research design. Therefore, the correlations made in this study, although consistently positive, do not necessarily offer broad insight to the body of research about the interrelationships of knowledge, belief, value, and practice.

Finally, the creation of this study was largely in response to the identified persistent lack of attention to social justice in OE (Warren, et al., 2014). Likewise, this study extended Wattchow, et al.'s (2014) model of socioecological education to include social justice as a key principle. Therefore, it was prudent to examine faculty's reported curricular priorities of social justice and their reported pedagogical application of social justice. It is important to note that this study measured a small number of specific representative social justice curricular and pedagogical aims and practices, and therefore does not constitute a comprehensive examination of faculty's social justice practice. There was an overall significant positive correlation between reported priority and reported practice. The data analysis provides evidence that the more faculty claim social justice as a curricular priority, the more likely they are to engage in social justice oriented pedagogical practices. For decades, scholars have called for an increased valuing of social justice among outdoor educators (Bell, 1996; Floyd, 1998; Frazer, 2009; Garvey, 1992; Mitten, et al., 2012; Rose & Paisley, 2012; Warren, 1998, 2005; and Warren, et al., 2014). This study supports that notion, indicating that increasing the perceived value of social justice in outdoor education is not just about raising awareness, but may have a significant tangible impact on the extent to which social justice is enacted in OE.

Implications for theory development and research

Wattchow, et al.'s (2014) model provides an integrated pathway forward, which encompasses many elements of the predominant aims and outcomes of OE, while adding in layers of more robust place-based strategies and allowing participants more agency in the ways in which the learning unfolds. What is absent in the model is robust and deliberate attention to social justice, particularly in terms of addressing dynamics of privilege and disadvantage in the learning environment and paralleling examinations of social and ecological justice issues. As discussed above, data show a significant correlation between knowledge and practice, and priority and practice. And as socioecological education becomes more known and valued in OE, with increased knowledge one may expect an increase in socioecological practice in OE. In other words, increasing faculty's applied knowledge of social justice may serve to increase their practice of social justice. Therefore, the extension of Wattchow, et al.'s (2014) model to include social justice as a key principle by this study may lead to more widespread incorporation of those principles into practice. Notably, social justice should be viewed as principle that is fundamental to all aspects of the educational process, rather than an idea that is laminated on top of existing curriculum and pedagogy. Since the principles within socioecological education (experiential pedagogies, place-based, agency and participation, lived experience) are viewed as inextricably linked, infusing a foundational focus on social justice as a key principle may serve to synthesize it into all areas of practice, whereas it is historically and presently often addressed as an adjunct to the predominant aims of OE. Additionally, the extension of socioecological education to include a more direct and foundational focus on social justice may serve to strengthen other areas of socioecological theory beyond Outdoor Education.

In order to further substantiate links between knowledge, priority, and practice, and in light of the strong internal reliability and validity of the survey instrument, this study can and should be replicated with other populations of outdoor educators. With permission by the author, the survey may be adopted for future research in differing contexts, such as instructors in environmental learning centers and other non-formal educational institutions to see whether their knowledge, beliefs, priorities, and practices differ from post-secondary faculty with regard to socioecological education. In addition to replicating this study varying contexts, it should be coupled with a qualitative component that more deeply investigates the specific and varied ways in which faculty engage social justice principles in their practice. Such investigation will help to strengthen and further substantiate a theoretical and practical model of socioecological education in OE, particularly with the extension of social justice as a key principle contributed by this study.

Additionally, according to the literature, socioecological theory and practice are becoming more prevalent in the field of OE. This study may serve as a benchmark for longitudinal studies about the development of knowledge, belief, priorities, and practice among OE faculty with regard to socioecological education. Most directly, data from this study may be revisited to determine the extent to which the same population's (post-secondary faculty) espoused knowledge, beliefs, values, and practices change over time. For example, survey respondents should be surveyed again following direct professional development interventions (as discussed below) to see whether or not they report an increase in espoused knowledge, belief, value, and practical application of socioecological education.

Finally, a logical extension of this study would be investigations that included observation of teaching practices, content analysis of curricular artifacts, focus group

discussions of students, and other avenues of data collection in order to be able to richly describe that directly assesses evidence of faculty practice. Such research would produce more direct empirically evidence of the extent to which faculty incorporate socioecological principles into their practice, and further illuminate effective strategies for socioecological modeling.

Implications for education and professional development

Based on the correlations between knowledge, priority, and practice, this study provides the strongest implications for outdoor educator preparation and professional development regarding socioecological educational practice. Although a directional correlation was not determined, it may be inferred that an increased conceptual knowledge of socioecological education may result in increased pedagogical application of socioecological education among outdoor educators (Anderson, et al., 2009). If this is accurate, then specific pre-service preparation and professional development is needed that increases knowledge of socioecological education among outdoor educators. Such preparation and development may be accomplished by increasing the extent of socioecological theory included in foundational OE textbooks, as well as encouraging submission of articles discussing specific curricular and pedagogical practices related socioecological theory and research to pertinent academic journals in OE. Likewise, a reframing of social justice as socioecological justice (Bowers, 2002; Furman, & Gruenewald, 2004; and Gruenewald, 2003a, 2003b) may encourage a more meaningful and effective integration of social justice principles into OE curriculum.

Because a positive correlation exists between knowledge, value, and practice among post-secondary OE faculty, there is perhaps a compelling need for more professional development opportunities for OE faculty to deepen their knowledge of socioecological

education, particularly related to social and ecological justice and place-based education. Specifically, seminars aimed at developing faculty's cultural self-identity, intercultural competency, and understanding of systems of oppression, privilege, and marginalization are needed. Furthermore, while Wattchow, et al. (2014) provide the groundwork for socioecological practice, faculty would benefit from more pragmatic socioecological curricular and pedagogical modeling, possibly offered through as professional development seminars, curriculum templates, and assessment rubrics, to promote the implementation of socioecological education curriculum in OE. Specifically, building on existing place-based education models (Sobel, 2005, Wattchow and Brown, 2011) would provide a more broadly familiar launching off point for faculty to engage in socioecological praxis. Ultimately, what should emerge is a field of Outdoor Education in which critical, ecologically grounded, social justice oriented, and inclusive practice is evident through varied curricular and pedagogical approaches, and engaged participation and leadership by a wide range of diverse groups and individuals.

Conclusion

This study was conducted under the premise that Outdoor Education needs to enhance and develop its focus on social and ecological justice, as well as reinvigorate attention to the socio-cultural context of experiential and constructivist pedagogies that exist at its core. Therefore, the specific purpose of this study was to explore the extent of post-secondary OE faculty's perceived knowledge, espoused beliefs, reported priories, and reported practice of socioecological education.

While data analyses suggest that faculty are largely familiar with socioecological principles and believe socioecological curricular aims are important, they reported a

relatively low level of applied knowledge and expertise regarding social justice. And while faculty report a favorable level of application of socioecological education in practice, faculty report notably lower frequency of practices that address social dynamics of privilege and disadvantage, actively engage people from historically marginalized identity groups, and drawing parallels between issues of social justice and ecological justice. Overall, the data resonate with the current state of the field regarding social justice, as described by Warren, et al. (2014), who indicate that while OE is evolving in its attention to social justice, there is still significant room for improvement.

Pointing to possible remedies for the gaps identified above, data show significant links between knowledge and practice, and priority and practice of socioecological education principles. These findings suggest that increasing perceived knowledge and value of social justice within an integrated model of socioecological education among OE practitioners will likely transfer to increased enactment of these principles in practice. Therefore, an extension of socioecological theory to include an increased focus on social justice, as well as pre-service education and professional development regarding socioecological education for OE practitioners is warranted.

References

Abbey, E. (1968). *Desert solitaire: A season in the wilderness*. New York: Ballantine Books.

Agyeman, J. (1989). Black people, white landscape. Town and Country Planning, 8, 12, 336-38.

Anderson, L. W., Bloom, B. S., & Krathwohl, D. R. (2009). *A taxonomy for learning, teaching, and assessing*. New York: Longman.

Applebaum, B. 2003. "Social Justice, Democratic Education, and the Silencing of Words that Wound". Journal of Moral Education. 32 (2): 151-62.

Baker, M. (January 01, 2005). Landfullness in Adventure-Based Programming: Promoting Reconnection to the Land. Journal of Experiential Education, 27, 3, 267-276.

Basturkmen, H. (June 01, 2012). Review of Research into the Correspondence between Language Teachers' Stated Beliefs and Practices. *System: an International Journal of Educational Technology and Applied Linguistics, 40,* 2, 282-295.

Beames, S. (2012). The Conscious Use (or Avoidance) of Metaphor in Outdoor Adventure Education. Pathways: The Ontario Journal Of Outdoor Education, 24(4), 24-27.

Bell, L. A. (2007). Theoretical foundations of social justice education. In M. Adams, L. A. Bell, & P. Griffin (Eds.), Teaching for diversity and social justice (2nd ed., pp. 1-14). New York, NY: Routledge.

Bell, M. (1996). Feminists challenging assumptions about outdoor leadership. In K. Warren (Ed.), Women's voices in experiential education (pp. 141-156). Dubuque, IA: Kendall Hunt.

Beringer, A. (1995). In Warren, K., Sakofs, M. S., & Hunt, J. S. *The theory of experiential education*. Dubuque, Iowa: Kendall/Hunt.

Berkes, F., J. Colding, and C. Folke. (2003). Navigating social-ecological systems: Building resilience for complexity and change. Cambridge University Press, Cambridge, UK. Resilience Alliance.

Bookchin, M. (1990). The philosophy of social ecology: essays on dialectical naturalism. Montréal: Black Rose Books.

Borg, M. (April 01, 2001). Key concepts in ELT. Teachers' beliefs. *Elt Journal, 55,* 2, 186-188.

Bowers, C. (2002). University of Bath. 1995. Environmental education research. Professional Development Collection. Ambingdon, Oxfordshire, Eng: Carfax Pub. Co.

Bowers, C. A. (February 01, 2002). Toward an Eco-justice Pedagogy. Environmental Education Research, 8, 1, 21-34.

Boyles, Carusi, and Attick. (2009). Historical and critical interpretations of social justice. Ayers, W., Quinn, T., and Stovall, D. (Eds.) Handbook of social justice in education. New York: Routledge.

Breunig, M. (January 01, 2005). Turning Experiential Education and Critical Pedagogy Theory into Praxis. Journal of Experiential Education, 28, 2, 106-122.

Brofenbrenner, U. (1976). Toward an experimental ecology of education. Teach. Coll. Rec. 78(2): 157-204.

Brookes, A. (2016). In Humberstone, B., In Prince, H., & In Henderson, K. A. *Routledge International Handbook of Outdoor Studies*.

Breunig, M, & Rylander, E. (2016). Beyond training for tolerance in outdoor experiential education: More than just leadership. In Humberstone, B., In Prince, H., & In Henderson, K. A. *Routledge International Handbook of Outdoor Studies.*

Bullard, R. D. (1996). "Environmental Justice: It's More Than Waste Facility Siting". Social Science Quarterly-. 77 (3): 493-499.

Chavez, D. J. (1992). Hispanic recreationists in the wildland-urban interface. Trends, 28(4), 23-25.

Cheeseman, A. (2015). The Albatross Story: A Reflection on the Powerful Effect of Outdoor Experiences on Personal Environmental Ethics. Pathways: The Ontario Journal Of Outdoor Education, 27(3), 34-36.

Creswell, J. W. (2013). *Research Design*. Thousand Oaks: SAGE Publications.

Culp, R. H. (1998). Adolescent girls and outdoor recreation: A case study examining constraints and effective programming. Journal of Leisure Research 30(3), 356-379.

Davis-Berman J., & Berman, D. (2005). Positive psychology and outdoor education. *Journal of Experiential Education, 28* (1), 17-24.

Dewey, J. (1916). Democracy and education: An introduction to the philosophy of education. New York: The Free Press.

Dewey, J. (1938). Experience and education. New York: Macmillan.

Floyd, M. (1998). Getting beyond marginality and ethnicity: The challenge for race and ethnic studies in leisure research. Journal of Leisure Research, 30, 3-22.

Fox, K. (1992). White awareness and our responsibility to end racism. Journal of Experiential Education, 15(3), 26–30.

Frazer, R. (2009). Toward a theory of critical teaching for social justice in outdoor education studies: A grounded theory study of philosophical perspectives and teaching practices (Unpublished doctoral dissertation). University of Wisconsin, Madison.

Freeman, M. (January 01, 2011). From "Character-Training" to "Personal Growth": The Early History of Outward Bound 1941-1965. *History of Education, 40,* 1, 21-43.

Freire, P. (1968). Pedagogy of the oppressed. New York: Seabury Press.

Freire, P. (1985). The politics of education: culture, power, and liberation. South Hadley, Mass: Bergin & Garvey.

Fullagar, S., & Hailstone, S. (1996). Shifting the ground: feminist theory in the outdoors, Social Alternatives, 15(2), 23-26

Furman, G., & Gruenewald, D. (2004). Expanding the landscape of social justice: A critical ecological analysis. Educational Administration Quarterly, 40(1), 47–76.

Gall, M. D., Gall, J. P., & Borg, W. R. (2007). *Educational research: An introduction*. Boston, MA: Pearson/Allyn & Bacon.

Garvey, D. (1992). Multicultural issues in experiential education. Journal of Experiential Education, 15(3), 6.

Gewirtz, S. (1998). "Conceptualizing social justice in education: mapping the territory". Journal of Education Policy. 13 (4): 469-484.

Gilbertson, K., Bates, T., Mclaughlin, T., Ewert, A. (2006). Outdoor education: Methods and strategies. Champaign, IL: Human Kinetics.

Gillis, H. L., & Speelman, E. (January 01, 2008). Are Challenge (Ropes) Courses an Effective Pedagogical Tool? A Meta-Analysis. *Journal of Experiential Education, 31,* 2, 111-135.

Giroux, H. A. (1997). Pedagogy and the politics of hope: theory, culture, and schooling : a critical reader. Boulder, Colo: WestviewPress.

Giroux, H. A. (2001). Theory and resistance in education: towards a pedagogy for the opposition. Westport, Conn: Bergin & Garvey.

Glassman, M. (May 01, 2001). Dewey and Vygotsky: Society, Experience, and Inquiry in Educational Practice. *Educational Researcher, 30,* 4, 3-14.

Goralnik, L., & Nelson, M. P. (January 01, 2011). Framing a Philosophy of Environmental Action: Aldo Leopold, John Muir, and the Importance of Community. The Journal of Environmental Education, 42, 3, 181-192.

Gredler, M. E. (2012). Understanding Vygotsky for the classroom: Is it too late? Educational Psychology Review, 24, 113-131.

Gruenewald, D. (2003a). The best of both worlds: A critical pedagogy of place. Educational Researcher, 32(4), 3–12.

Gruenewald, D. (2003b). Foundations of place: A multidisciplinary framework for place-conscious education. American Educational Research Journal, 40(3), 47–76.

Haluza-Delay, R. (March 31, 2010). Nothing Here to Care About: Participant Constructions of Nature Following a 12-Day Wilderness Program. *The Journal of Environmental Education, 32,* 4, 43-48.

Hamilton, T. (March 07, 2004). The Representation and Appropriation of Indigenous Cultures at Ontario Summer Camps. *Pathways: the Ontario Journal of Outdoor Education, 15,* 1, 9-15.

Hans, T. A. (January 01, 2000). A Meta-Analysis of the Effects of Adventure Programming on Locus of Control. *Journal of Contemporary Psychotherapy, 30,* 33-60.

Higgins, P. (2009). Into the Big Wide World: Sustainable Experiential Education for the 21st Century. Journal Of Experiential Education, 32(1), 44-60.

Hill, A, (2012) Introducing a critical socio-ecological approach for educating outdoors, Outdoor Education in Aotearoa New Zealand, Christchurch Polytechnic Institute of Technology, D Irwin, J Straker and A Hill (ed), New Zealand, pp. 46-64.

Hill, A. (2013). The Place of Experience and the Experience of Place: Intersections Between Sustainability Education and Outdoor Learning. Australian Journal of Environmental Education, vol. 29(1), 18–32, 2013

Holman, T., Goldenberg, M., McAvoy, L., & Rynders, J. (2003). Outcomes-consequences-values of an integrated wilderness adventure program. *The Journal of Experiential Education, Abstracts, 25*, (3) 353.

Iarossi, G. (2006). *The power of survey design: A user's guide for managing surveys, interpreting results, and influencing respondents*. Washington, D.C: World Bank.

Irwin, D., & Straker, J. (December 01, 2014). Tenuous Affair: Environmental and Outdoor Education in Aotearoa New Zealand. *Australian Journal of Environmental Education, 30,* 2, 151-166.

James, T. (1995). Kurt Hahn and the aims of education. In K., Warren, M. Sakofs, & J. S. Hunt (Eds.), The theory of experiential education (3rd ed., pp. 15–22). Dubuque, IA: Kendall/Hunt.

Joplin, L. (1995). On defining experiential education. In K., Warren, M. Sakofs, & J. S. Hunt (Eds.), The theory of experiential education (3rd ed., pp. 15–22). Dubuque, IA: Kendall/Hunt.

Kiewa, J. Towards a model of the *adventure* experience. In Cole, E. (1994). *Wilderness therapy for women: The power of adventure*. New York: Harrington Park Press.

Knapp, C. E. (January 01, 2005). The "I-Thou" Relationship, Place-Based Education, and Aldo Leopold. Journal of Experiential Education, 27, 3, 277-285.

Knight, A. H. (1998). *The life of the law: The people and cases that have shaped our society, from King Alfred to Rodney King*. Oxford: Oxford University Press.

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs, N.J: Prentice-Hall.

Lebak, K. (December 01, 2015). Unpacking the Complex Relationship Between Beliefs, Practice, and Change Related to Inquiry-Based Instruction of One Science Teacher. *Journal of Science Teacher Education : the Official Journal of the Association for Science Teacher Education, 26,* 8, 695-713.

Litz, K., & Mitten, D. (2013). Inspiring Environmental Stewardship: Developing a Sense of Place, Critical Thinking Skills, and Ecoliteracy to Establish an Environmental Ethic of Care. Pathways: The Ontario Journal Of Outdoor Education, 25(2), 4-8.

Liu, A. (2011). Unraveling the myth of meritocracy within the context of US higher education. Higher Education, 62(4), 383-397.

Lowan, G. (January 01, 2009). Exploring Place from an Aboriginal Perspective: Considerations for Outdoor and Environmental Education. *Canadian Journal of Environmental Education, 14,* 1, 42-58.

Luckner, J. L., & Nadler, R. S. (1997). *Processing the experience: Strategies to enhance and generalize learning*. Dubuque, Iowa: Kendall/Hunt.

McClintock, M. (1989). Ten ways educators can limit or empower members of subordinate social groups.

McDonald, D., & McAvoy, L. (1997). Native Americans and leisure: State of research and future directions. Journal of Leisure Research, 29, 145-166.

McLaren, P. (1989). Life in schools: an introduction to critical pedagogy in the foundations of education. New York: Longman.

McLaren, P. (1997). Revolutionary multiculturalism: pedagogies of dissent for the new millennium. Boulder, Colo: Westview Press.

McLaughlin, P. (2001). "Toward an Ecology of Social Action: Merging the Ecological and Constructivist Traditions". HUMAN ECOLOGY REVIEW. 8: 12-28.

Mies, Maria and Vandana Shiva. Ecofeminism. Halifax: Fernwood Publications. 1993.

Mitten, D. (March 08, 1999). "You Ain't Gonna Get Me on That Rock...": Women Offenders Learn a New Kind of Risk. *Zip Lines: the Voice for Adventure Education,* 34, 46-50.

Mitten, D. (December 07, 1989). Healthy Expressions of Diversity Lead to Positive Group Experiences. Journal of Experiential Education, 12, 3, 17-22.

Mitten, D. (September 06, 1985). A Philosophical Basis for a Women's Outdoor Adventure Program. Journal of Experiential Education, 8, 2, 20-24.

Mitten, D., Warren, K., Lotz, E., & d'Amore, C. (2012). The hidden curriculum in adventure education: A Delphi study. In A. Ewert & S. Taniguchi (Eds.), Proceedings of the 2012 symposium on experiential education research (pp. 37-40). Madison, WI: AEE.

Mitten, D. in Cole, E., Erdman, E., & Rothblum, E. D. (1994). Wilderness therapy for women: The power of adventure. New York: Haworth Press.

Moskowitz, D., & Ottey, D. (2006). Leaving 'Leave No Trace' Behind. Green Teacher, (78), 16-19.

Neill, J. T. (2002). Meta-Analytic Research on the Outcomes of Outdoor Education. Paper presented to the 6th Biennial Coalition for Education in the Outdoors Research Symposium, Bradford Woods, IN, 11-13 January, 2002

Neill, J. T. (2008). Meta-Analytic Research on the Outcomes of Outdoor Education. Paper presented to the 6th Biennial Coalition for Education in the Outdoors Research Symposium, Bradford Woods, IN, 11-13 January, 2002

Neill, J. T., Richards, G. E. (1998). Does Outdoor Education Really Work? A summary of meta-analyses. Australian Journal of Outdoor Education – 3(1)

Neill, James T., and Katica L. Dias. 2001. "Adventure education and resilience: The double-edged sword". Journal of Adventure Education & Outdoor Learning. 1 (2): 35-42.

North, C. E., (2006). More than Words? Delving into the Substantive Meaning(s) of "Social Justice" in Education. Review of Educational Research, v76 n4 p507-535.

Oles, G. W. (1992). “Borrowing” activities from another culture: A Native American’s perspective.

Journal of Experiential Education, 15(3), 20-22.

Orr, D. W. (1994). Earth in mind: On education, environment, and the human prospect. Washington, DC: Island Press.

Oxendine, C., Robinson, J., & Willson, G. (2004). Experiential learning. In M. Orey (Ed.), Emerging perspectives on learning, teaching, and technology.

Pajares, M. F. (December 07, 1992). Teachers' Beliefs and Educational Research: Cleaning Up a Messy Construct. *Review of Educational Research, 62,* 3, 307-32.

Petrová, Z. (2013). "On the Relevancy of Using Vygotsky's Theoretical Framework to Legitimize Dialogic Teaching/Learning". Journal of Pedagogy. 4 (2): 237-252.

Pinar, W. (2012). What is curriculum theory? New York: Routledge.

Pinar, W. F., Reynolds, W. M., Slattery, P., Taubman, P. M. 2006. Understanding curriculum: an introduction to the study of historical and contemporary curriculum discourses. New York: P. Lang.

Popkewitz, T. (1998) Dewey, Vygotsky, and the Social Administration of the Individual: Constructivist Pedagogy as Systems of Ideas in Historical Spaces. *American Educational Research Journal* 35(4), 535-570.

Priest, S. (June 06, 1986). Redefining Outdoor Education: A Matter of Many Relationships. Journal of Environmental Education, 17, 3, 13-15.

Priest, S. (1986). "Redefining Outdoor Education: A Matter of Many Relationships". Journal of Environmental Education. 17 (3): 13-15.

Priest, S., & Gass, M. A. (2005). *Effective leadership in adventure programming*. Champaign, Ill: Human Kinetics.

Quay, J., & Seaman, J. (2016). In Humberstone, B., In Prince, H., & In Henderson, K. A. *Routledge International Handbook of Outdoor Studies.*

Quinn, W. J. (September 06, 1990). The Essence of Adventure. *Journal of Outdoor Education, 24,* 22-25.

Quinn, W. J., & Smith, T. E. (1992). *The Sweat Lodge Ceremony in Challenge: Adventure Programming*. Washington, D.C.: Distributed by ERIC Clearinghouse.

Rafferty, P. (2012). "The Confluence of Curriculum Theory and the Phenomenological for the Critical Pedagogue". Scholar-Practitioner Quarterly. 5 (4): 385-393.

Rawls, J. (1999). A theory of justice. Belknap: Cambridge, MA.

Rawls, J., and Kelly, E. (2001). Justice as fairness: a restatement. Cambridge, Mass: Harvard University Press.

Redman, C. L., J. Grove, M., and Kuby, L. (2004). "Integrating Social Science into the Long-Term Ecological Research (LTER) Network: Social Dimensions of Ecological Change and Ecological Dimensions of Social Change". Ecosystems. 7 (2): 161-171.

Roberts, N. S. (2008). Use of public lands and open space for recreation: Connecting with diverse communities. In D. Newsom & B. Gentry (Eds.), Proceedings from the broadening the base through open space: Addressing demographic trends by saving land and serving people (pp. 93-105). Asilomar, CA: Yale Conservation Strategies Workshop.

Roberts, N. S., & Drogin, E. B. (1993). The outdoor recreation experience: Factors affecting participation of African American women. Journal of Experiential Education, 16, 14-18.

Roberts, N. S., & Rodriguez, D. R. (1999). Multicultural issues in outdoor education. Charleston,

WV: ERIC Clearinghouse on Rural Education and Small Schools Appalachia Educational Laboratory. Ed 1.331/2:edo-rc-99-6.

Rose,J., & Cachelin,A. (2013). Critical sustainability: Promoting pedagogies of placefulness in outdoor education. The Journal of Sustainability Education, 2.

Rohnke, K., Butler, S., & Project Adventure, Inc. (1995). *QuickSilver: Adventure games, initiative problems, trust activities, and a guide to effective leadership*. Dubuque, Iowa: Kendall/Hunt Pub. Co.

Rose, J., & Paisley, K. (2012). White privilege in experiential education: A critical reflection. Leisure Sciences, 34, 136-154.

Salleh, A. (1997). *Ecofeminism as politics: Nature, Marx and the postmodern*. London: Zed Books.

Scrutton, R., & Beames, S. (March 01, 2015). Measuring the Unmeasurable: Upholding Rigor in Quantitative Studies of Personal and Social Development in Outdoor Adventure Education. *Journal of Experiential Education, 38,* 1, 8-25.

Seaman, J. (2008). Experience, Reflect, Critique: The End of the "Learning Cycles" Era. Journal Of Experiential Education, 31(1), 3-18.

Sen, A. (2002). Rationality and freedom. Cambridge, Mass: Belknap Press.

Sharp, L. B. (1943). Outside the classroom. *The Educational Forum*, *7*, 4, pp. 361-368.

Shooter, W., Sibthorp, J., & Paisley, K. (January 01, 2009). Outdoor Leadership Skills: A Program Perspective. *Journal of Experiential Education, 32,* 1, 1-13.

Sikorcin, I. (2003). Exploring social class in outdoor environmental education. Pathways: The Ontario Journal of Outdoor Education, 15(1), 20-23.

Simon, G. L., & Alagona, P. S. (January 01, 2009). Beyond Leave No Trace. *Ethics, Place & Environment, 12,* 1, 17-34.

Smith, G. (2002). Place-based education: Learning to be where we are. Phi Delta Kappan, 83(8), 584–594.

Smith, T. E., & Knapp, C. (2011). Sourcebook of experiential education: Key thinkers and their contributions. New York: Routledge.

Sobel, D. (2005). Place-based education: Connecting classrooms & communities. Great Barrington, MA: Orion Society.

Spence, M. D. (1999). Dispossessing the wilderness: Indian removal and the making of the national parks. New York: Oxford University Press.

Stewart, A. (2004a). Canoeing the Murray River (Australia) as environmental education: A tale of tale of two rivers. Canadian Journal of Environmental Education, 9, 136-147.

Stewart, A. (2004b). Decolonising encounters with the Murray River: Building place responsive outdoor education. Australian Journal of Outdoor Education, 8(2), 46-55.

Sugerman, D. A., Doherty, K. L., Garvey, D. E., & Gass, M. A. (2000). Reflective learning: Theory and practice. Dubuque, Iowa: Kendall/Hunt Publishing Company.

Tarrant, M. A., and H. Ken Cordell. (1999). "Environmental Justice and the Spatial Distribution of Outdoor Recreation sites: an Application of Geographic Information Systems". Journal of Leisure Research. 31 (1): 18-34.

Tokar, B. (1998). Exploring the new ecologies; Social ecology, deep ecology and the future of green political thought. The Ecologist, 18(1), pp. 132-141).p

Van Matre, S. (1972). *Acclimatization: A sensory and conceptual approach to ecological involvement*. Martinsville, IN: American Camping Association.

Vygotsky, L. S. (1978). *Mind in society: The development of higher mental functions.* Cambridge: Harvard University Press.

Walsh, V., Collins, G., & Colorado Outward Bound School. (1976). *The exploration of the Outward bound process*. Denver?: Colorado Outward Bound School.

Warren K. (Ed.). (1996). Women's voices in experiential education. Dubuque, IA: Kendall Hunt.

Warren, K. (1998). A call for race, gender, and class sensitive facilitation in outdoor experiential education. Journal of Experiential Education, 21, 21-25.

Warren, K. (2002). Preparing the next generation: Social justice in outdoor leadership education and training. Journal of Experiential Education, 25, 231-238.

Warren, K. (2005). A path worth taking: The development of social justice in outdoor experiential education. Equity & Excellence in Education, 38, 89-99.

Warren, K. (2012). Paradigms of outdoor adventure and social justice. In B. Martin & M. Wagstaff (Eds.), Controversial issues in adventure programming (pp. 120-125).

Warren, K., & Association for Experiential Education. (1996). Women's voices in experiential education. Dubuque, Iowa: Kendall/Hunt.

Warren, K., & Erkal, N. (1997). *Ecofeminism: Women, culture, nature*. Bloomington, IN: Indiana University Press.

Warren, K., Roberts, N. S., Breunig, M., & Alvarez. (March 01, 2014). Social Justice in Outdoor Experiential Education: A State of Knowledge Review. Journal of Experiential Education, 37, 1, 89-103.

Washington, S. J., & Roberts, N. S. (1999). Adventure education for teaching cross-cultural competencies. In J. C. Miles & S. Priest (Eds.), Adventure programming (pp. 359-364).

State College, PA: Venture Publishing.

Wattchow, B., Jeanes, R., Alfrey, L., Brown, T., Cutter-Mackenzie, A., O'connor, J. (eds.). (2014). The socioecological educator: a 21st century renewal of physical, health, environment and outdoor education, Springer, Dordrecht, Netherlands.

Wattchow, B., & Brown, M. (2011). A pedagogy of place: Outdoor education for a changing world. Clayton, Vic: Monash University Pub.

Whittington, A., & Mack, E. (2010). Inspiring courage in girls: An evaluation of practices

and

outcomes. Journal of Experiential Education, 33, 166-180.

Wichmann, T. F. (May 01, 1980). Babies and Bathwater: Two Experiential Heresies. *Journal of Experiential Education, 3,* 1, 6-12.

Woodhouse, J., & Knapp, C. (2000). Place-based curriculum and instruction: Outdoor and environmental education approaches. ED448012. Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools.

Young, I. M. (2011). *Justice and the politics of difference*. Princeton: Princeton University Press.

Appendix

Socioecological Practice in Post Secondary Outdoor Education

Q1.1 Socioecological Educational Practice in Post-Secondary Outdoor Education Greetings! You are invited to participate in a research study exploring the extent to which Outdoor Education faculty incorporate socioecological principles into practice in post-secondary Outdoor Education. You are being asked to participate in this study because of your position as faculty teaching at least half time in a post-secondary Outdoor Education (or closely related) program. I ask that you read this page before agreeing to participate in the study. Should you have any questions please contact me, Danny Frank (Primary Investigator) at dnfrank@d.umn.edu, or 218.340.7015 and ask any questions you may have before agreeing to be in the study. I am conducting this study as a Doctoral Candidate at the University of Minnesota Duluth (UMD) as partial completion of the requirements for the Doctorate in Education. Procedures: If you agree to be in this study, you are asked to complete the following survey (click here), which will take approximately 15 minutes of your time. A paper copy of the survey is also available upon request by contacting me at dnfrank@d.umn.edu. The study data will be gathered anonymously on Qualtrics and treated in aggregate. In any sort of reporting of the analysis, no information will be included that will make it possible to identify a participant. Research records will be stored securely and only I will have access to the data. Voluntary Nature of the Study: Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with the me or the University of Minnesota. If you decide to participate, you are free not to answer any questions or withdraw at any time without affecting those relationships. Compensation: There is no compensation offered for participation in this study. Contacts and Questions: I, Danny Frank am the Primary Investigator conducting this study. If you have questions now, during, or following the survey, you are encouraged to contact me at dnfrank@d.umn.edu, or 218.340.7015, or my thesis advisor Dr. Lynn Brice at lbrice@d.umn.edu or 218.726.6815. If you have any question or concerns regarding this study and would like to talk to someone other than the researcher, you are encouraged to contact the Research Subjects' Advocate Line, D528 Mayo, 420 Delaware St. Southeast, Minneapolis, Minnesota 55455; 612.625.1650. Or visit the website at: http://www.irb@umn.edu. Please feel free to print and retain a copy of this information to keep for your records. Statement of Consent: In completing the online survey, you are providing your consent for your responses to be included in the study.

Q1.2 The following items ask basic demographic information related to your professional work in Outdoor Education.

Q1.3 Please indicate your cumulative years of professional work in Outdoor Education (in numeric form).
_____ Years worked in Outdoor Education (1)

Q1.4 Please indicate your highest level of education
- ❍ Bachelor's Degree (1)
- ❍ Some Graduate coursework (2)
- ❍ Master's Degree (3)
- ❍ Some Doctoral level coursework (4)
- ❍ Doctoral Degree (5)

Q1.5 Please indicate your faculty rank within your current institution.
- ❍ Part time Non Tenure Track (i.e. Adjunct, Lecturer) (1)
- ❍ Full time Non Tenure Track (i.e. Instructor) (2)
- ❍ Assistant Professor (3)
- ❍ Associate Professor (4)
- ❍ Full Professor (5)

Q2.1 INSTRUCTIONS: Each item in this section contains a definition of one of five key concepts of Socioecological Education. For each item, please indicate your perceived level of knowledge of the stated concept.

Q2.2 Social Justice is a process of actively acknowledging, examining, and working to transform cultural dynamics of privilege and marginalization within and surrounding the learning environment. This includes interpersonal, institutional, structural, and systemic social power dynamics, as well as ways in which social dynamics impact ecological systems.

	I have no knowledge of this concept (1)	I am mostly unfamiliar with this concept (2)	I am somewhat familiar with this concept (3)	I am very familiar with this concept (4)	I have a strong working knowledge of this concept (5)	I consider myself an expert in this concept (6)
What is your perceived level of knowledge about Social Justice? (1)	❍	❍	❍	❍	❍	❍

Q2.3 Experiential Pedagogies utilize personal and group reflection, to explore what students are learning. Students are compelled to transfer new skills, insights, and knowledge gained to other aspects of their lives. Experiential pedagogies acknowledge the existing skills, knowledge, and insights that students bring to the learning experience, as well as the ways in which culturally embedded norms and ideals contextualize and shape the learning environment.

	I have no knowledge of this concept (1)	I am mostly unfamiliar with this concept (2)	I am somewhat familiar with this concept (3)	I am very familiar with this concept (4)	I have a strong working knowledge of this concept (5)	I consider myself an expert in this concept (6)
What is your perceived level of knowledge about Experiential Pedagogies? (1)	❍	❍	❍	❍	❍	❍

Q2.4 Lived Experience acknowledges that students bring a wealth of life experiences to the learning environment, which are influenced by a unique set of familial, cultural, social, and economic factors. Students are guided to explore the influence of their life stories on their present learning experiences, as well as how their presence contributes to the learning environment.

	I have no knowledge of this concept (1)	I am mostly unfamiliar with this concept (2)	I am somewhat familiar with this concept (3)	I am very familiar with this concept (4)	I have a strong working knowledge of this concept (5)	I consider myself an expert in this concept (6)
What is your perceived level of knowledge about Lived Experience? (1)	❍	❍	❍	❍	❍	❍

Q2.5 Place-Based Pedagogy actively recognizes the social, historical, cultural, political, ecological, and economic realities of a particular geographic space. Students are guided to explore and critique these elements of place, while also developing a personal connection to place through a deepened understanding of it.

	I have no knowledge of this concept (1)	I am mostly unfamiliar with this concept (2)	I am somewhat familiar with this concept (3)	I am very familiar with this concept (4)	I have a strong working knowledge of this concept (5)	I consider myself an expert in this concept (6)
What is your perceived level of knowledge about Place-Based Pedagogy? (1)	❍	❍	❍	❍	❍	❍

Q2.6 Agency and Participation require that students are provided substantial information about the learning experience, as well as opportunities to help shape it. This includes having influence in goals, outcomes, activities, and assessment of programs, as well as choice in which program activities they choose to participate.

	I have no knowledge of this concept (1)	I am mostly unfamiliar with this concept (2)	I am somewhat familiar with this concept (3)	I am very familiar with this concept (4)	I have a strong working knowledge of this concept (5)	I consider myself an expert in this concept (6)
What is your perceived level of knowledge about Agency and Participation? (1)	❍	❍	❍	❍	❍	❍

Q3.1 INSTRUCTIONS: The following questions examine your beliefs about the aims and purposes of Outdoor Education. For each item, please indicate the extent to which you agree with the statement provided.

	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)
1) Students gaining a greater knowledge of self is essential to outdoor education. (1)	❍	❍	❍	❍	❍	❍
2) Students learning to navigate personal challenges is essential to outdoor education. (2)	❍	❍	❍	❍	❍	❍
3) Promoting improved communication skills with others is essential to outdoor education. (3)	❍	❍	❍	❍	❍	❍
4) Promoting group cohesion and cooperation with others is essential to outdoor education. (4)	❍	❍	❍	❍	❍	❍
5) Students learning technical physical skills is essential to outdoor education. (5)	❍	❍	❍	❍	❍	❍

6) Students challenging themselves physically is essential to outdoor education. (6)	❍	❍	❍	❍	❍	❍

Q3.2 INSTRUCTIONS: The following questions examine your beliefs about the aims and purposes of Outdoor Education. For each item, please indicate the extent to which you agree with the statement provided.

	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)
7) Students increasing their environmental awareness is essential to outdoor education. (7)	❍	❍	❍	❍	❍	❍
8) Students developing pro-environmental behaviors is essential to outdoor education. (8)	❍	❍	❍	❍	❍	❍
9) Students increasing knowledge of natural and human histories of local landscapes is essential to outdoor education. (9)	❍	❍	❍	❍	❍	❍
10) Students increasing knowledge of human impacts on local ecological landscapes is essential to outdoor education. (10)	❍	❍	❍	❍	❍	❍

11) Students developing personal connections to local landscapes is essential to outdoor education. (11)	❍	❍	❍	❍	❍	❍
12) Allowing students to determine the extent to which they participate in program activities is essential to outdoor education. (12)	❍	❍	❍	❍	❍	❍

Q3.3 INSTRUCTIONS: The following questions examine your beliefs about the aims and purposes of Outdoor Education. For each item, please indicate the extent to which you agree with the statement provided.

	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)
13) Providing students opportunities to contribute to course content and goals is essential to outdoor education. (13)	❍	❍	❍	❍	❍	❍
14) Having students reflect on how their previous life experiences influence their present learning is essential to outdoor education. (14)	❍	❍	❍	❍	❍	❍
15) Developing physically and culturally inclusive learning environments for all students is essential to outdoor education. (15)	❍	❍	❍	❍	❍	❍

16) Addressing social dynamics of privilege and disadvantage is essential to outdoor education. (16)	❍	❍	❍	❍	❍	❍
17) Promoting social equity is essential to outdoor education. (17)	❍	❍	❍	❍	❍	❍
18) Recognizing the connections between social justice and ecological justice is essential to outdoor education. (18)	❍	❍	❍	❍	❍	❍

Q4.1 INSTRUCTIONS: The following items examine the value you place on stated curricular aims of outdoor education. Rank each cluster in order of importance to you: 1 being the most important and 5 being the least important. Note: You will see items appear more than once, arranged in clusters with different items.

Q4.2 Please rank each cluster of outcomes order of importance to you. 1 being the most important and 5 being the least important. Each item completes the sentence, "The aim of Outdoor Education is for students to..."

_____ Increase their self-awareness (1)
_____ Build trust with others (2)
_____ Improve personal health and fitness (3)
_____ Gain knowledge of plants and animals (4)
_____ Increase awareness of cultural biases and assumptions (5)

Q4.3 Please rank each cluster of outcomes order of importance to you. 1 being the most important and 5 being the least important. Each item completes the sentence, "The aim of Outdoor Education is for students to..."
_____ Increase self-confidence (1)
_____ Work effectively with others to solve problems (2)
_____ Develop lifelong hobbies (3)
_____ Develop a sense of stewardship for the environment (4)
_____ Increase awareness of social dynamics of privilege and disadvantage (5)

Q4.4 Please rank each cluster of outcomes order of importance to you. 1 being the most important and 5 being the least important. Each item completes the sentence, "The aim of Outdoor Education is for students to..."
_____ Reflect on the personal meaning of what they are learning (1)
_____ Learn to work cooperatively with others (2)
_____ Reflect on what they experience physically during activities (3)
_____ Develop of pro-environmental values (4)
_____ Develop intercultural competence (5)

Q4.5 Please rank each cluster of outcomes order of importance to you. 1 being the most important and 5 being the least important. Each item completes the sentence, "The aim of Outdoor Education is for students to..."
_____ Reflect on how new knowledge and insights may be applied to future life situations (1)
_____ Develop empathy toward others (2)
_____ Increase physical abilities (3)
_____ Develop an understanding of human impacts on local ecosystems (4)
_____ Gain exposure to diverse cultural perspectives (5)

Q4.6 Please rank each cluster of outcomes order of importance to you. 1 being the most important and 5 being the least important. Each item completes the sentence, "The aim of Outdoor Education is for students to..."
_____ Increase their self-awareness (1)
_____ Work effectively with others to solve problems (2)
_____ Reflect on what they experience physically during activities (3)
_____ Develop an understanding of human impact on local ecosystems (4)
_____ Increase awareness of dynamics of privilege and disadvantage (5)

Q4.7 Please rank each cluster of outcomes order of importance to you. 1 being the most important and 5 being the least important. Each item completes the sentence, "The aim of Outdoor Education is for students to..."
_____ Reflect on the personal meaning of what they are learning (1)
_____ Develop empathy toward others (2)
_____ Develop lifelong hobbies (3)
_____ Form a personal connection to the environment (4)
_____ Increase awareness of cultural biases and assumptions (5)

Q4.8 Please rank each cluster of outcomes order of importance to you. 1 being the most important and 5 being the least important. Each item completes the sentence, "The aim of Outdoor Education is for students to..."

_____ Increase self-confidence (1)
_____ Learn to work cooperatively with others (2)
_____ Improve personal health and fitness (3)
_____ Develop pro-environmental values (4)
_____ Gain exposure to diverse cultural perspectives (5)

Q4.9 Please rank each cluster of outcomes order of importance to you. 1 being the most important and 5 being the least important. Each item completes the sentence, "The aim of Outdoor Education is for students to..."

_____ Reflect on how new knowledge and insights may be applied to future life situations (1)
_____ Build trust with others (2)
_____ Increase physical abilities (3)
_____ Gain knowledge of plants and animals (4)
_____ Develop intercultural competence (5)

Q5.1 INSTRUCTIONS: Please indicate the extent to which you enact each pedagogical practice. For each item, identify the frequency with which you enact the stated practice.

	Almost Never (1)	Very Infrequently (2)	Infrequently (3)	Frequently (4)	Very Frequently (5)	Almost Always (6)
1) I utilize personal narratives, such as journals or stories, to describe people's interactions with local landscapes. (1)	❍	❍	❍	❍	❍	❍
2) I incorporate a variety of cultural perspectives when exploring local landscapes. (2)	❍	❍	❍	❍	❍	❍
3) I provide opportunities for students to have direct contact with local landscapes. (3)	❍	❍	❍	❍	❍	❍
4) I utilize reflective exercises, such as journals and group discussions, to help students gain	❍	❍	❍	❍	❍	❍

meaning from what they are learning. (4)						
5) I utilize reflective exercises, such as journals and group discussions, to help students transfer new skills and knowledge to future life situations. (5)	❍	❍	❍	❍	❍	❍

Q5.2 INSTRUCTIONS: Please indicate the extent to which you enact each pedagogical practice. For each item, identify the frequency with which you enact the stated practice.

	Almost Never (1)	Very Infrequently (2)	Infrequently (3)	Frequently (4)	Very Frequently (5)	Almost Always (6)
6) I utilize physical challenge to foster personal growth and development. (6)	❍	❍	❍	❍	❍	❍
7) Before the learning event, I fully inform students about program goals, outcomes, and activities. (7)	❍	❍	❍	❍	❍	❍
8) I allow students to determine the extent to which they participate in program activities. (8)	❍	❍	❍	❍	❍	❍
9) I seek feedback from students regarding program content, outcomes, and assessment. (9)	❍	❍	❍	❍	❍	❍
10) I encourage	❍	❍	❍	❍	❍	❍

students to share personal stories and narratives about their lives. (10)						

Q5.3 INSTRUCTIONS: Please indicate the extent to which you enact each pedagogical practice. For each item, identify the frequency with which you enact the stated practice.

	Almost Never (1)	Very Infrequently (2)	Infrequently (3)	Frequently (4)	Very Frequently (5)	Almost Always (6)
11) I guide exploration of how students' prior life experiences contribute to their present learning. (11)	❍	❍	❍	❍	❍	❍
12) I guide exploration of how students' prior skills and knowledge contribute to the present learning experience. (12)	❍	❍	❍	❍	❍	❍
13) I identify dynamics of cultural privileges and disadvantages present in the learning environment. (13)	❍	❍	❍	❍	❍	❍
14) I ensure activities are accessible to all people regardless of physical ability. (14)	❍	❍	❍	❍	❍	❍
15) I actively enlist	❍	❍	❍	❍	❍	❍

participation of people from historically marginalized groups. (15)						

Q6.1 The following items ask basic personal demographic information.

Q6.2 Please indicate your race and/or ethnicity
- ❑ American Indian or Native Hawaiian (11)
- ❑ Black, African Born, or African American (12)
- ❑ Indigenous, First Nations, or Aboriginal from outside North America (13)
- ❑ Latina/o/x (14)
- ❑ Multi-racial (15)
- ❑ White (16)
- ❑ Other (10)

Q6.3 Please indicate your gender identity
- ❍ Female (1)
- ❍ Gender Fluid or Gender Non-Conforming (2)
- ❍ Male (3)
- ❍ Transgender (4)
- ❍ Other (5)
- ❍ Prefer not to respond (6)

Q6.4 Please indicate your age
- ❍ younger than 20 (1)
- ❍ 20-29 (2)
- ❍ 30-39 (3)
- ❍ 40-49 (4)
- ❍ 50-59 (5)
- ❍ 60-69 (6)
- ❍ 70-70 (7)
- ❍ 80 or older (8)